Kentucky Occupational Outlook to 2014



Education Cabinet

Department for Workforce Investment Office of Employment and Training



KENTUCKY OCCUPATIONAL OUTLOOK TO 2014

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Preface

Which jobs will be in demand in Kentucky from now until 2014? Which occupations will provide the most job openings each year through 2014? Which occupations are likely to grow the fastest between 2004 and 2014? Which are likely to decline? This report offers some insight into these oft-asked questions. Students, job seekers, counselors, economic developers and market analysts should find this publication helpful.

The Labor Market Information (LMI) in this publication is based on a wide spectrum of labor market statistics collected and developed by the staff of the Research and Statistics (R&S) Branch in the Kentucky Office of Employment and Training (OET). The LMI Section within the R&S Branch also projected and estimated the numbers which serve as the base for this publication.

These estimates reflect only the predicted *demand* for labor from 2004 through 2014. The *supply* or the number of educated/trained workers to fill future job openings is beyond the scope of this report.

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Highlights

- The Kentucky economy is expected to average over 70,000 job openings annually between 2004 and 2014.
- Over the 2004-2014 decade total employment is projected to increase by 235,900 jobs, or 12.2 percent. Over the previous decade (1994-2004) total employment grew 11.5 percent and increased by 201,500 jobs.
- The emergence of new workforce trends and the decline of the old are inevitable as the global economy continually changes.
- Over a quarter of the 2014 projected employment will be in two of the largest occupational groups: Office and Administrative Support Occupations and Sales and Related Occupations.
- Computer and Mathematical Occupations is the fastest growing group at 25.8 percent; close behind is Healthcare Support Occupations at 24.4 percent and Personal Care and Service Occupations at 22.8 percent.
- Due to a longer life expectancy for aging Kentuckians the Healthcare Support Occupations group is projected to grow at this respectable rate.
- The group of Life, Physical and Social Science Occupations is expected to grow at a higher rate than the growth rate for all occupations at 14.1 percent.
- Office and Administrative Support Occupations as a group is expected to grow at the very slow rate of 4 percent between 2004 and 2014.
- Though some individual occupations might decline, Farming, Fishing, and Forestry Occupations is the only major group expected to decline collectively from 2004-2014.
- The Installation, Maintenance, and Repair Occupations group is expected to grow at 10.4 percent between 2004 and 2014, which is considered a slow growth rate.
- Obtaining a postsecondary degree offers increased job security and a greater potential for financial gain.

Highlights (continued)

- Occupations requiring more education are increasing in share of total employment between 2004 and 2014.
- Low pay is given for jobs requiring only short-term on-the-job training. Pay is significantly higher for jobs requiring long-term on-the-job training, but this category is projected to grow the slowest among all categories at 10.1 percent between 2004 and 2014.
- Occupations requiring moderate-term on-the-job training provide the best opportunity for persons not considering college with over 450,000 job openings estimated in 2004. This group also has an average annual wage of approximately \$30,139 and nearly five times as many annual job openings as the group requiring long-term training.
- Occupations usually requiring a doctoral degree are expected to grow the fastest of all education/training groups between 2004 and 2014 at 22 percent.
- A bachelor's degree provides the largest number of job opportunities for those seeking postsecondary education.
- Occupations that require an associate's degree are expected to grow 21.7 percent as a group between 2004 and 2014, the second highest among all groups.
- The occupations generally requiring a first professional degree primarily lie almost exclusively in the field of Healthcare Practitioners and Technical Occupations. Lawyers and Law Teachers (Postsecondary) are the only two exceptions.
- Employment for Education, Training, and Library Occupations has recently declined; over the period of 2004 to 2014 employment is expected to grow at a rate of 22 percent overall, however.
- Occupations requiring short-term on-the-job training account for almost one-third of the total average annual job openings.
- Changes in technology, work processes, automation and the demand for products and services are among the major causes of both growth and decline among occupations.

A User's Guide to Occupational Outlook Statistics

When looking at an occupation, what key outlook data should you review?

1) **Annual Job Openings** (2004-2014). The annual openings estimate the likely annual demand for workers in each occupation.

2) **Job Growth Rate** (2004-2014). The job growth rate shows the percentage each occupation is likely to grow or decline between 2004 and 2014.

What creates job openings?

- 1) Employment growth (new jobs).
- 2) Employment separations (job vacancies created by persons leaving an occupation). The employment separation number for an occupation is the rate at which workers leave that occupation.

What creates employment change?

- Industry growth or decline has the greatest influence on employment change. Industry growth occurs when the demand for goods and services rises and, in turn, the demand for workers to produce those goods and services also rises.
- 2) **Technological change** can raise the demand for some skills while eliminating the need for other skills.
- 3) **New ways of doing business** such as self-service, 24-hour operations, etc., can affect employment change.

Do workers leave some occupations more frequently than other occupations?

Yes. Every occupation has a different employment separation number. Occupations requiring more education and training have a higher percentage of full-time workers and lower separation numbers. Occupations requiring less education tend to have higher separation numbers.

What factors affect the number of job openings for an occupation?

- 1) The overall size of the occupation how many workers are employed now?
- 2) **The occupation's separation number** how many job vacancies are created from workers leaving the occupation?
- 3) **The occupation's rate of change** how fast is the occupation growing or declining?

What factors are most important?

The **overall employment** size and the number of separations are more important than the percent change in affecting the number of job openings.

What is the best way to compare one occupation with another?

- Look at the total Average Annual Job Openings not just openings resulting from growth. A large number of openings means it should be relatively easy to find a job in that occupation.
- 2) Look at the **Job Growth Rate** (2004-2014) expressed as a percentage. A high percentage increase in employment means there should be a greater chance for advancement because demand is likely to remain strong for some time.

Kentucky Occupational Outlook to 2014

The future is never certain, but it can be very useful to look ahead and try to determine the likely employment outlook for the Kentucky economy through the year 2014. Labor market conditions in Kentucky are becoming more favorable for employment than they have been in recent years, and the long-term job outlook projects a continuation of that trend.

The Kentucky economy will generate over 70,000 jobs annually.

The Kentucky economy is expected to increase by nearly 236,000 new jobs from 2004 through 2014. An additional 464,000 job vacancies will likely occur as workers leave or separate from various occupations in Kentucky. Such job vacancies become available from retirements, promotions, or transfers within occupations. This means the Kentucky economy will generate over 70,000 jobs per year through 2014 to be filled by educated and trained workers.

The shifting structure of the Kentucky economy will continue.

The 2004 to 2014 employment outlook will vary greatly among the specific occupations presented in the Kentucky Occupational Outlook and Job Openings table on pages 27-64. However, the structure of the major occupational divisions will shift moderately from 2004 through 2014. (See Chart 1, page 5.)

Nearly one-third of the new jobs created between 2004 and 2014 will be in three very large occupational groups.

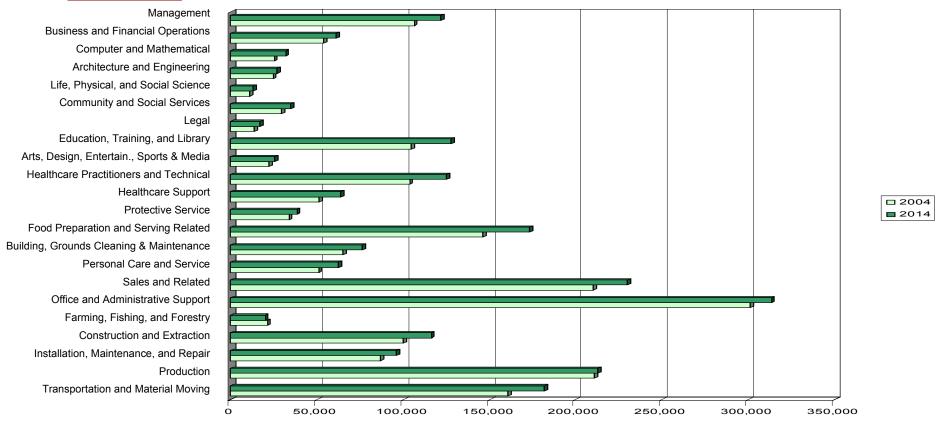
Employment in three major occupational groups — Food Preparation and Serving Related Occupations, Education, Training, and Library Occupations, and Transportation and Material Moving Occupations — will grow 18.4, 22.0, and 13.3 percent respectively between 2004 and 2014, and will add the most jobs over the ten-year period. (See Table 1, page 6.) These three major groups, which are spread across the educational attainment spectrum, are expected to provide about 30 percent of the total job growth from 2004 to 2014.

The Computer and Mathematical Occupations group is by far the fastest growing of all occupations.

Computer and Mathematical Occupations as a group is projected to grow at a fast pace — 25.8 percent between 2004 and 2014 — over twice the average rate of growth for all occupations. Two of the top five occupational growth rates occur in this category, while the other three come from Installation, Maintenance, and Repair Occupations, a group that collectively projects a very slow growth rate.



Kentucky Employment by Major Occupational Category



Healthcare Support Occupations are projected to grow at a fast rate.

Among the Service Occupations, Healthcare Support Occupations are expected to grow a fast 24.4 percent because of the need to care for aging Kentuckians due to their longer life expectancy. Occupational Therapist Aides and Physical Therapist Aides are both expected to increase by over 40 percent over the ten-year period.

Food Preparation and Serving Occupations, Education, Training, and Library Occupations, and Transportation and Material Moving Occupations will together comprise nearly a third of the projected total job growth over the ten-year period.

These three large groups of occupations will provide growth of approximately 26,900, 23,100, and 21,400 respectively from 2004 to 2014. Each group will individually change at a rate above the average for all occupations.

				ent		Cha	ange	Total Average Annual Job Openings by Occupation Category		
		Number		Percent Distribution		2004-2014		2004-2014		
									Percent	
Category	Code	2004	2014	2004	2014	Number	Percent	Number*	Distribution	
Total, All Occupations		1,936,853	2,172,736	100.0%	100.0%	235,883	12.2%	70,055	100.0%	
Management Occupations	11	106,487	121,988	5.5%	5.6%	15,501	14.6%	3,542	4.9%	
Business and Financial Operations Occupations	13	54,054		2.8%	2.8%	,	13.6%		2.4%	
Computer and Mathematical Occupations	15	25,428	31,981	1.3%	1.5%	6,553	25.8%	1,000	1.4%	
Architecture and Engineering Occupations	17	24,670	27,089	1.3%	1.2%	2,419	9.8%	839	1.2%	
ife, Physical, and Social Science Occupations	19	11,437	13,046		0.6%	1,609	14.1%		0.6%	
Community and Social Services Occupations	21	29,702	34,928	1.5%	1.6%	5,226	17.6%	1,057	1.5%	
egal Occupations	23	14,044	,	0.7%	0.8%		22.6%	477	0.7%	
Education, Training, and Library Occupations	25	104,927	128,041	5.4%	5.9%		22.0%	4,421	6.1%	
Arts, Design, Entertain., Sports & Media Occupations	27	22,607	25,849	1.2%	1.2%		14.3%	759	1.0%	
Healthcare Practitioners & Technical Occupations	29	103,770	124,986	5.4%	5.8%	21,216	20.5%			
Healthcare Support Occupations	31	51,510	64,085	2.7%	2.9%	12,575	24.4%	2,071	2.9%	
Protective Service Occupations	33	33,949	38,568	1.8%	1.8%	4,619	13.6%	1,427	2.0%	
Food Preparation and Serving Related Occupations	35	146,543	173,431	7.6%	8.0%	26,888	18.4%	8,391	11.6%	
Building, Grounds Cleaning & Maintenance Occupations	37	65,259	76,280	3.4%	3.5%	11,021	16.9%	2,396	3.3%	
Personal Care and Service Occupations	39	51,074	62,725	2.6%	2.9%	11,651	22.8%	2,405	3.3%	
Sales and Related Occupations	41	210,090	230,146	10.8%	10.6%	20,056	9.6%	8,956	12.4%	
Office and Administrative Support Occupations	43	301,267	313,405	15.6%	14.4%	12,138	4.0%	9,123	12.6%	
Farming, Fishing, and Forestry Occupations	45	21,399	20,147	1.1%	0.9%	-1,252	-5.9%	612	0.8%	
Construction and Extraction Occupations	47	100,042	116,402	5.2%	5.4%	16,360	16.4%	3,677	5.1%	
nstallation, Maintenance, and Repair Occupations	49	87,176	96,262	4.5%	4.4%	9,086	10.4%	2,918	4.0%	
Production Occupations	51	210,805	212,733	10.9%	9.8%	1,928	0.9%	6,167		
ransportation and Material Moving Occupations	53	160,613			8.4%	21,432	13.3%	5,829	8.1%	

All major occupational groups are expected to increase over the period 2004 to 2014.

Office and Administrative Support Occupations, the largest employment group, is expected to grow a slow 4.0 percent between 2004 and 2014. Advances in technology and office procedures continue to slow growth in these occupations.

Production Occupations as a group is expected to grow at a very slow rate of 0.9 percent between 2004 and 2014. Advances in technology are also the cause of the slow growth (and often decline) in this occupational group.

The Value of Education

Many factors help to determine one's success in the future workplace of Kentucky. However, education will continue to be one of the most critical factors in gaining employment in a chosen field. While there are many reasons other than money for selecting a career, traditionally, the more education you have the more money you can earn. In fact, the value of education has increased during the past 20 years. Table 2 below clearly shows the current general monetary value of education within the state.

There are significant payoffs for attending a postsecondary school.

From the data listed in Table 2, one can clearly see the monetary benefits of each level of training and education. The smallest training category, which consists of all degrees higher than a bachelor's degree, earns by far the most on average. Occupations that generally require a bachelor's degree or a bachelor's degree with work experience earn markedly less than those requiring a postgraduate degree, but they still earn a great deal more on average than those occupations that normally require an associate's degree or postsecondary vocational training.

It is important to note that the category consisting of occupations generally requiring an associate's degree or postsecondary vocational training can be somewhat misleading statistically. This group, when combined, earns less on average than the category consisting of occupations generally requiring work experience in a related occupation or long-term on-the-job training. One should not subsequently conclude that there is no benefit in attaining an associate's degree. Occupations requiring an associate's degree account for about 41 percent of the approximate 183,000 persons employed in this category with an average annual wage of over \$44,000; occupations requiring postsecondary vocational training make up the rest with an average annual wage of about \$28,000.

The bulk of Kentucky's workforce continues to reside in those occupations requiring either moderate-term or short-term onthe-job training. These categories, when combined, account for almost three fifths of the state's total employment. This reflects the Kentucky economy's persistent reliance on manufacturing and services in recent years. With technology expanding throughout the workforce, many of these occupations will require additional skills and training in the future.

TABLE 2: 2005 Average Annual Kentucky Wage Estimates by Training Category									
	Training Code		Average Annual						
Training Category		Employment	Wage						
Postgraduate	1,2,3	58,447	\$74,609						
Bachelor's Degree & Bachelor's Degree with Work Experience	4,5	264,182	\$58,510						
Associate's Degree or Postsecondary Vocational Training	6,7	183,499	\$34,840						
Work Experience in a Related Occupation or Long-Term OJT	8,9	303,297	\$39,332						
Moderate-Term OJT	10	452,953	\$30,139						
Short-Term OJT	11	691,797	\$20,966						

Education and Training

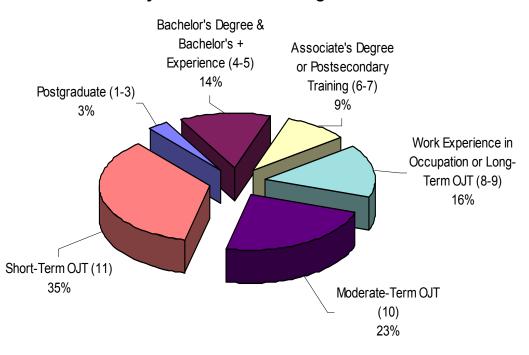
This section of the report groups Kentucky occupations by levels of education and training generally required to gain employment in a chosen field. The Bureau of Labor Statistics developed 11 broad education and training levels to present the occupations for analysis. The 11 categories are grouped as follows:

- (1) Professional degree, (such as physicians, lawyers, clergy, etc.);
- (2) Doctoral degree;
- (3) Master's degree;
- (4) Bachelor's degree plus work experience;
- (5) Bachelor's degree;
- (6) Associate degree;
- (7) Postsecondary vocational training;
- (8) Work experience in a related occupation;
- (9) Long-term on-the-job training;
- (10) Moderate-term on-the-job training; and
- (11) Short-term on-the-job training.

The percentages of new jobs by training categories that the Kentucky economy is likely to create between 2004 and 2014 are displayed in Chart 2. Categories 1, 2 and 3 are combined as "Postgraduate"; categories 4 and 5 are combined Short-Term OJT (11) as "Bachelor's degree and Bachelor's degree with Work Experience"; categories 6 and 7 are combined as "Associate's Degree or Postsecondary Training"; and categories 8 and 9 are combined as "Work Experience in a Related"

CHART 2

Percent of Kentucky's Total Job Growth by Education or Training 2004-2014



Occupation or Long-Term OJT". The remaining categories are shown individually. The largest education and training category, short-term OJT, with over 691,000 workers in 2004, is projected to account for 35 percent of the new job openings between 2004 and 204. The category consisting of bachelor's degree and bachelor's degree with experience accounted for 14 percent of all Kentucky workers in 2004 and is projected to account for 14.2 percent of new job growth. About 3 percent of workers are employed in occupations that generally require more education than a bachelor's degree. This number is projected to account for about 3.3 percent of new job growth by 2014.

Occupations requiring more education are increasing in share of employment.

Occupations requiring an associate's degree or more education will increase in the share of total employment. Occupations requiring just a high school diploma and work experience will decline overall in share of employment. Occupations requiring an associate's degree or more education accounted for 21 percent of all Kentucky's jobs in 2004 and will account for over 22 percent of projected employment for 2014. In contrast, occupations requiring no education or training beyond high school are declining in share of employment over the period.

Low pay is given for jobs requiring only short-term on-the-job training.

The largest group of occupations consists of those requiring short-term on-the-job training, meaning workers generally learn the required job skills in a few weeks or less. In 2004, approximately 691,000 Kentucky workers in these occupations accounted for over 35 percent of the state's total employment. Most occupations in this category are Office and Administrative Support Occupations, Production Occupations, and Transportation and Material Moving Occupations. Almost half of the workers in these occupations earn \$10 or less an hour.

TABLE 3: Employment and Average Annual Job Openings, 2004-2014, by Education and Training Categories												
Education and Training		Emplo	yment		Cha	nge	Total Average Annual Job Openings by Occupation Category					
		Nur	nber	Percent D	istribution	2004-	-2014	20	04-2014			
Category	Code	2004	2014	2004	2014	Number	Percent	Number	Percent Distribution			
Total, All Occupations		1,936,853	2,172,736	100.0%	100.0%	235,883	12.2%	23,588	100.0%			
First Professional Degree	1	19,842	,			,						
Doctoral Degree	2	9,711	12,583	0.5%		,	22.0%	287	0.7%			
Master's Degree	3	28,894	34,873	1.5%	1.6%	5,979	20.7%	600	1.6%			
Work experience plus Bachelor's or												
higher degree	4	79,379	91,443	4.1%	4.2%	12,064	15.2%	1,213	3.7%			
Bachelor's Degree	5	184,803	216,846	9.5%	10.0%	32,043	17.3%	3,251	9.3%			
Associate's Degree	6	76,126	92,653	3.9%	4.3%	16,527	21.7%	1,662	4.3%			
Postsecondary Vocational Training	7	107,373	124,470	5.5%	5.7%	17,097	15.9%	1,741	5.2%			
Work experience in a related occupation	8	160,254	180,731	8.3%	8.3%	20,477	12.8%	2,055	7.4%			
Long-term on-the-job training	9	143,022	154,561	7.4%	7.1%	11,539	8.1%	1,627	6.1%			
Moderate-term on-the-job training	10	452,954	491,014	23.4%	22.6%	38,060	8.4%	4,688	19.7%			
Short-term on-the-job training	11	691,797	761,816	35.7%	35.1%	70,019	10.1%	8,217	40.6%			

Pay is significantly higher for jobs requiring moderate-term, on-the-job training.

Occupations requiring moderate-term on-the-job training means workers can generally learn the job skills after one to twelve months of combined on-the-job experience and informal training. These occupations include about 452,000 workers or 23.4 percent of Kentucky's total employment in 2004. These moderate-term occupations are projected to increase by over 38,000 jobs by 2014. These workers will earn significantly more than workers in the lowest training category. Over 75 percent of the workers in the moderate-term on-the-job training category will earn more than \$10 per hour.

Occupations requiring more than a year of on-the-job experience and formal training provide the best opportunities for persons not considering college.

Occupations generally requiring more than a year of on-the-job experience and formal training — such as carpenters, police officers or maintenance repairers — account for 7.4 percent of Kentucky's total employment in 2004. A vast majority of employees in these occupations requiring more than a year of on-the-job experience earn more than \$10 per hour. An additional 8.3 percent are employed in occupations requiring experience from another occupation and generally do not require postsecondary education or training. Many of these workers are supervisors or managers and all occupations in this group earn over \$10 per hour on average. Occupations requiring postsecondary vocational training account for an additional 107,000 or 5.5 percent of total employment in 2004. Only two occupations listed in this category earn less than \$10 an hour on average.

Occupations usually requiring a doctoral degree are expected to grow the fastest of all education/training groups between 2004 and 2014.

Occupations usually requiring a doctoral degree accounted for only 0.5 percent of all jobs in 2004 and are expected to increase 22 percent by 2014, the fastest growing category of all the education/training categories. Almost all of these occupations are in the Education, Training, and Library Occupations under the subheading of Postsecondary Teachers. This growth also emphasized the desire more people have to gain a postsecondary degree and as a result the need for more qualified teachers in order to educate the growing number of students.

For persons considering college, a bachelor's degree provides the largest number of job opportunities.

Occupations requiring a bachelor's degree accounted for 9.5 percent of all workers in 2004. These occupations are expected to increase to 10 percent by 2014. Employment in this category approximated 184,000 in 2004 and is projected to increase by over 32,000 workers by 2014. In addition, jobs in which workers needed experience before obtaining their current job accounted for another 4.1 percent of all workers in 2004. Many employees in this category work in Business and Financial Operations Occupations and Architecture and Engineering Occupations. Almost all of these occupations earn substantially more than \$10 per hour on average.

Occupations requiring education beyond a bachelor's degree should grow 22.4 percent between 2004 and 2014

A relatively small portion of workers (3.0%) are employed in occupations requiring education beyond a bachelor's degree, including occupations requiring a professional degree (1 percent), doctoral degree (0.5 percent) and master's degree (1.5 percent). Combined, these higher education categories are projected to grow by over 13,000 jobs between 2004 and 2014.

Charting the Occupational Outlook

The following 14 charts focus on Kentucky occupations with the most annual job openings, fastest-growing employment and significant employment decline from 2004 to 2014. Each chart ranks the top 20 occupations, from highest to lowest, according to the number of annual job openings or percentage of change between 2004 and 2014. Each chart includes the 2005 average hourly wage for each occupation. Comments beside the chart summarize the occupational openings and job growth and include factors that affect these changes.

The first 12 charts organize occupations by the levels of education and training usually required for one to obtain employment.

Charts 3 and 4 present Kentucky occupations usually requiring a professional or a graduate degree. First professional degrees, doctoral degrees, and master's degrees are grouped together in the "Graduate or Professional Degree" category.

Charts 5 and 6 display Kentucky occupations usually requiring a bachelor's degree or work experience in addition to a bachelor's degree.

Charts 7 and 8 rank the occupations generally requiring an associate's degree or postsecondary vocational certificate.

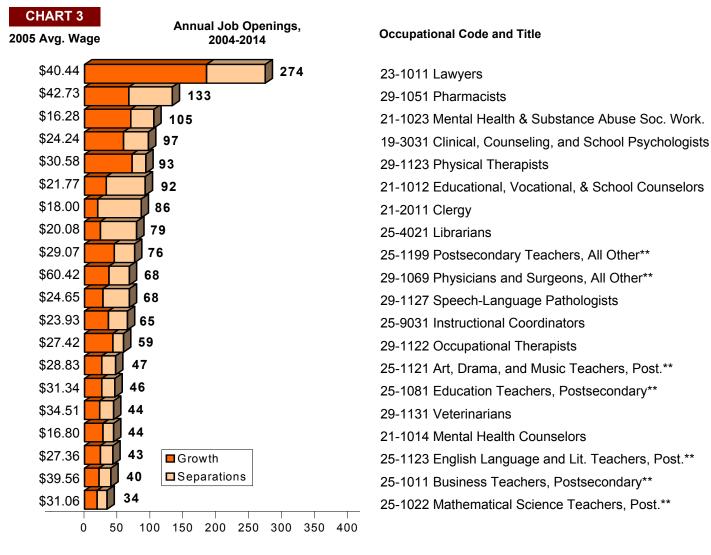
Charts 9 and 10 present the Kentucky occupations generally requiring long-term on-the-job training or work experience in a related occupation.

Charts 11 and 12 display occupations requiring moderate-term on-the-job training.

Kentucky occupations requiring short-term on-the-job training are presented in Charts 13 and 14.

The final two, Charts 15 and 16, identify Kentucky occupations in which employment is expected to decline significantly between 2004 and 2014.

Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a Graduate or Professional Degree*



These 20 occupations represent about two-thirds of the projected total annual job openings requiring a graduate or professional degree.

Eighteen of these 20 occupations are classified as Education, Training & Library Occupations, Healthcare Practitioners & Technical Occupations, or Community & Social Service Occupations.

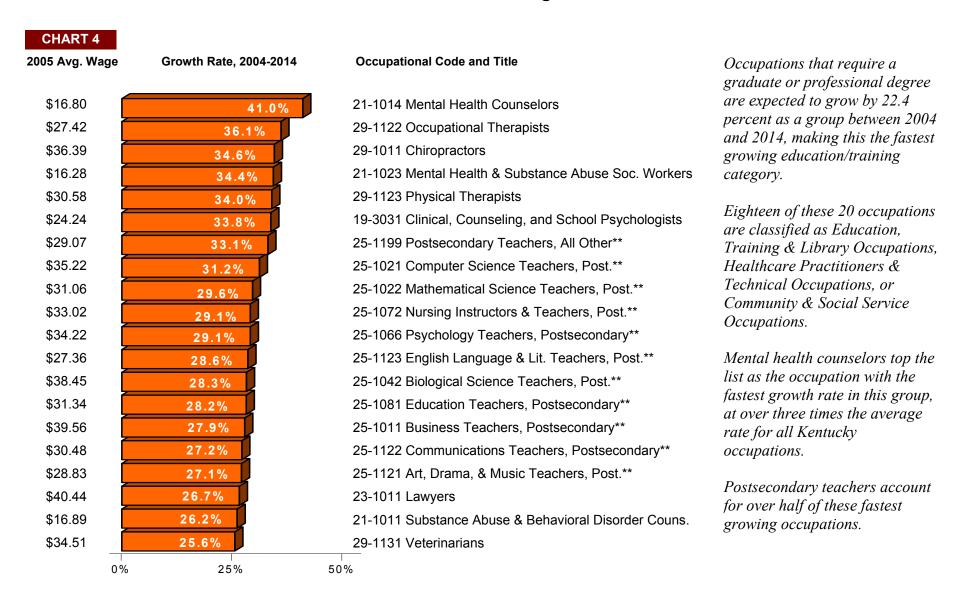
Approximately 54 percent of the total job openings in this category should be generated by growth, with the remaining 46 percent coming from separations.

The top two occupations, lawyers and pharmacists, generally require a professional degree and provide nearly 17 percent of the projected annual job openings in this category.

^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs a professional degree, master's degree, or doctoral degree to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The total number of projected job openings each year is posted to the right of each bar.

^{**} Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Twenty Fastest Growing Kentucky Occupations Generally Requiring a Graduate or Professional Degree*



^{*} This chart groups occupations generally requiring a master's degree, doctoral degree, or professional degree. Occupations with less than 20 job openings per year are not included in this chart.

^{**} Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a Bachelor's Degree or Bachelor's Degree and Work Experience*

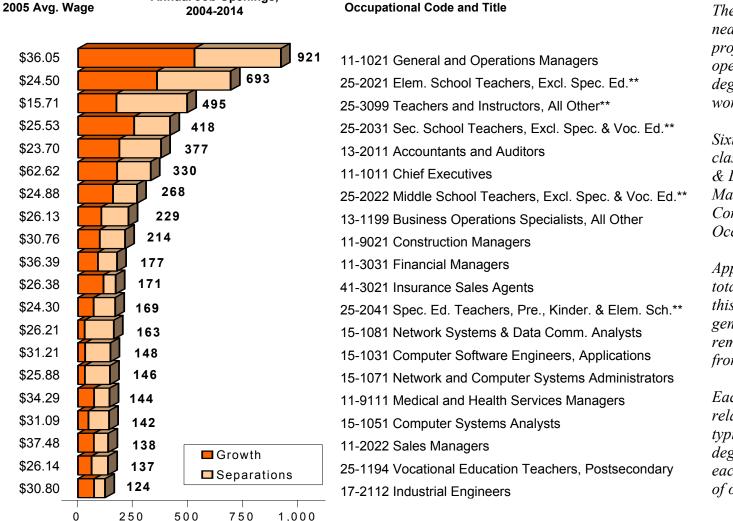


CHART 5

Annual Job Openings,

These 20 occupations represent nearly 60 percent of the projected total annual job openings requiring a bachelor's degree or bachelor's degree and work experience.

Sixteen of these occupations are classified as Education, Training & Library Occupations, Management Occupations, or Computer & Mathematical Occupations.

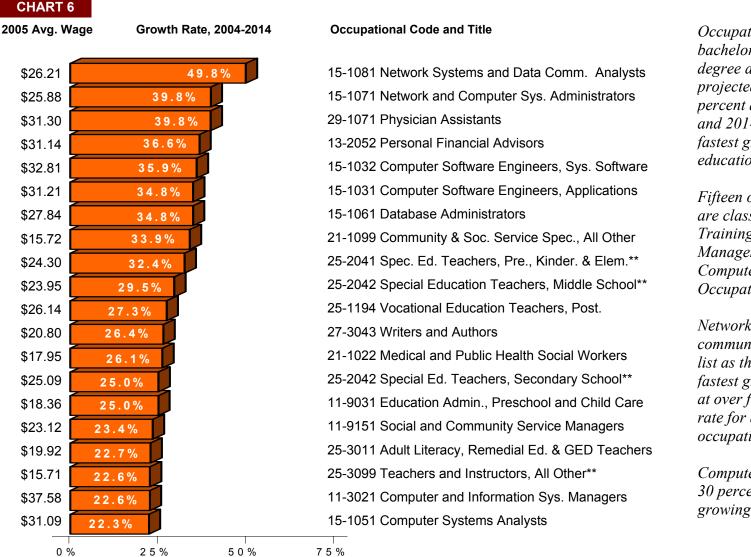
Approximately 47 percent of the total number of job openings in this category should be generated by growth, with the remaining 53 percent coming from separations.

Each of the six managementrelated occupations in this list typically require a bachelor's degree and work experience, but each also earns an average wage of over \$30 per hour.

^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs a bachelor's degree or bachelor's degree plus work experience to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The total number of projected job openings each year is posted to the right of each bar.

^{**} Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Twenty Fastest Growing Kentucky Occupations Generally Requiring a Bachelor's Degree or Bachelor's Degree and Work Experience*



Occupations that require a bachelor's degree or bachelor's degree and work experience are projected to grow by 16.7 percent as a group between 2004 and 2014, making this the second fastest growing education/training category.

Fifteen of these 20 occupations are classified as Education, Training & Library Occupations, Management Occupations, or Computer & Mathematical Occupations.

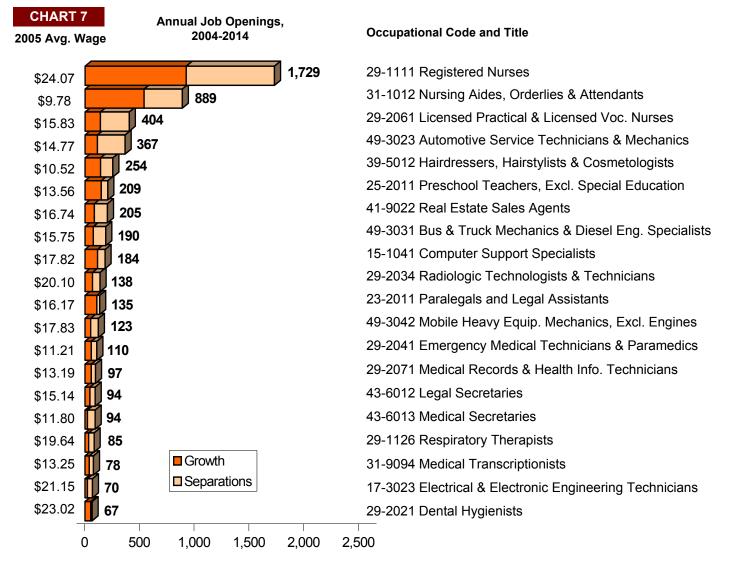
Network systems and data communications analysts top the list as the occupation with the fastest growth rate in this group, at over four times the average rate for all Kentucky occupations.

Computer specialists account for 30 percent of these fastest growing occupations.

^{*} This chart groups occupations generally requiring a bachelor's degree or a bachelor's degree plus work experience. Occupations with less than 20 job openings per year are not included in this chart.

^{**} Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring an Associate's Degree or Postsecondary Vocational Training*



These 20 occupations represent 80 percent of the projected annual job openings requiring an associate's degree or postsecondary vocational training.

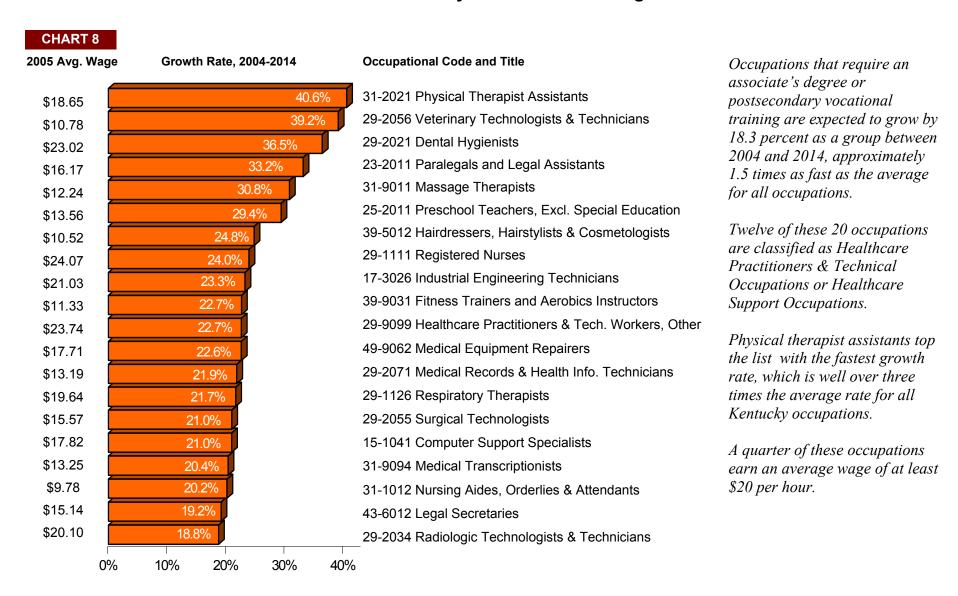
Over one-third of these occupations are classified as Healthcare Practitioners & Technical Occupations.

Approximately 49 percent of the total job openings in this category should be generated by growth, with the remaining 51 percent coming from separations.

The top occupation, registered nurses, generally requires an associate's degree and is expected to provide over one-fourth of the total annual job openings in this category.

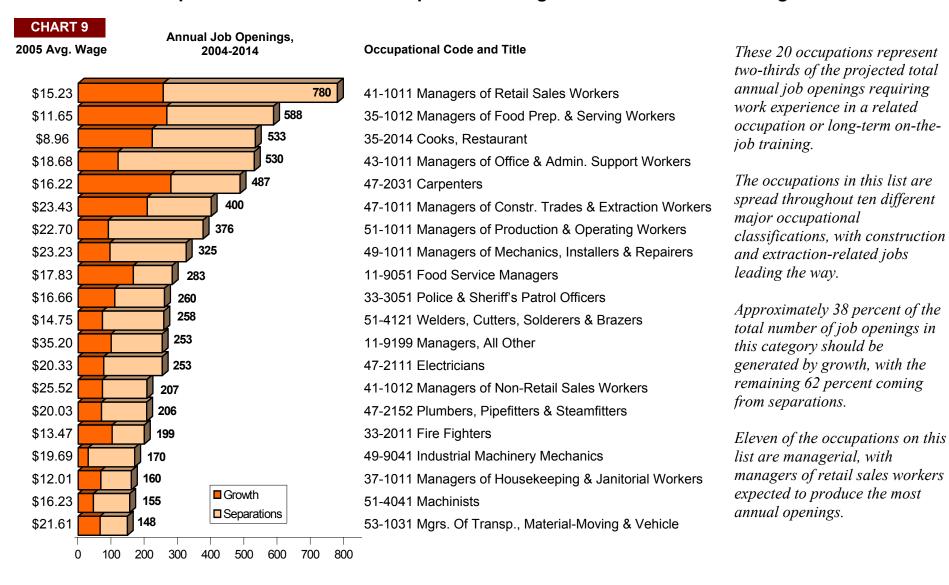
^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs an associate's degree or postsecondary vocational training to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The projected number of job openings each year is posted to the right of each bar.

Twenty Fastest Growing Kentucky Occupations Generally Requiring an Associate's Degree or Postsecondary Vocational Training*



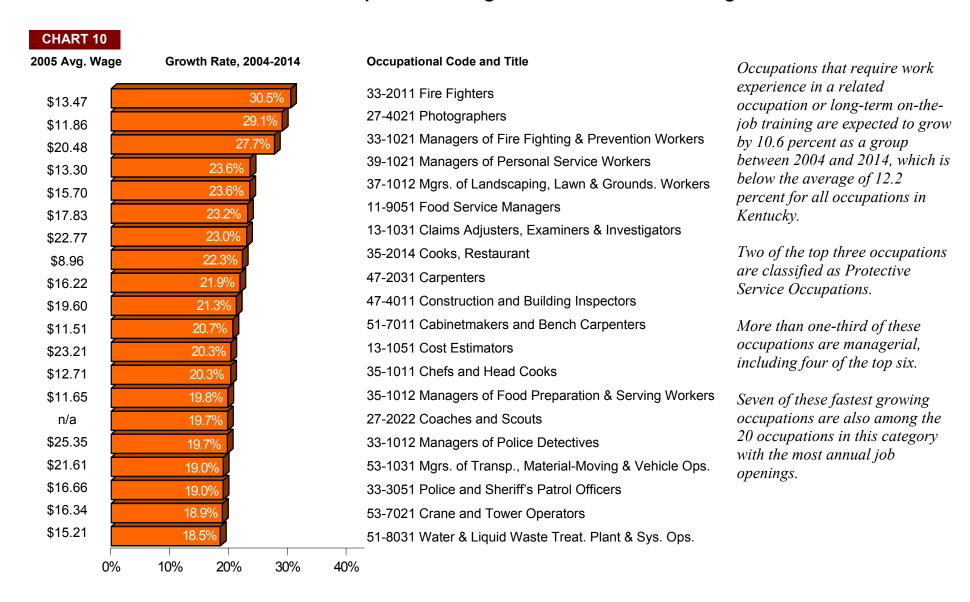
^{*} This chart groups occupations generally requiring an associate's degree or postsecondary vocational training. Occupations with less than 20 job openings per year are not included in this chart.

Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring Work Experience in a Related Occupation or Long-Term On-The-Job Training*



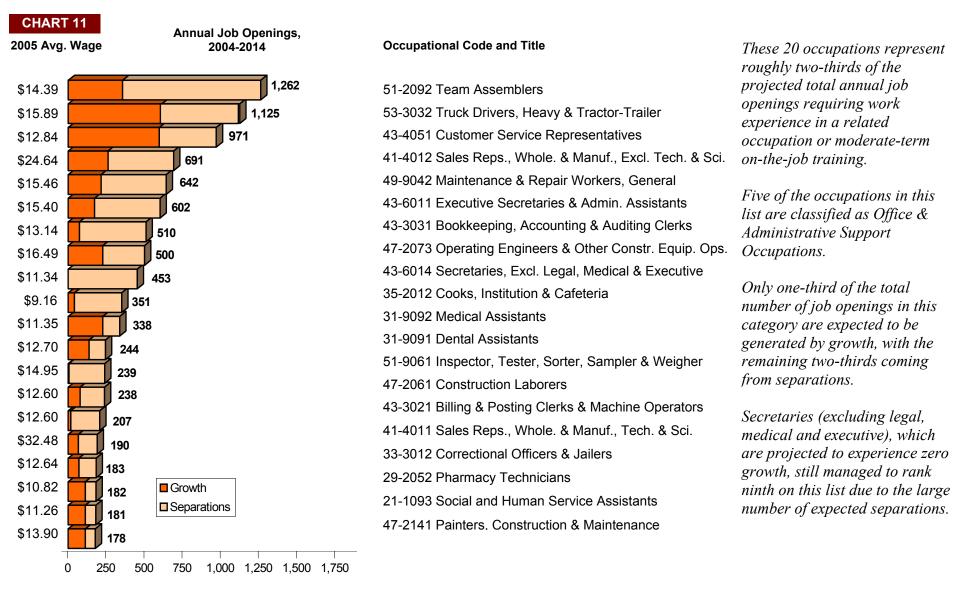
^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs work experience in a related occupation or long-term, on-the-job training to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The total number of projected job openings each year is posted to the right of each bar.

Twenty Fastest Growing Kentucky Occupations Generally Requiring Work Experience in a Related Occupation or Long-Term On-The-Job Training*



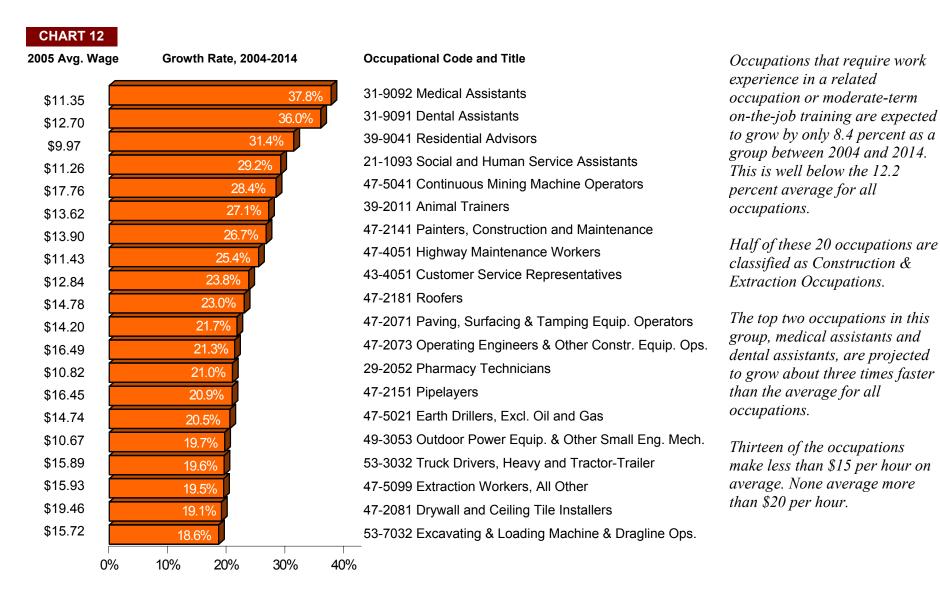
^{*} This chart groups occupations generally requiring work experience in a related occupation or long-term on-the-job training. Occupations with less than 20 job openings per year are not included in this chart.

Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring Work Experience in a Related Occupation or Moderate-Term On-The-Job Training*



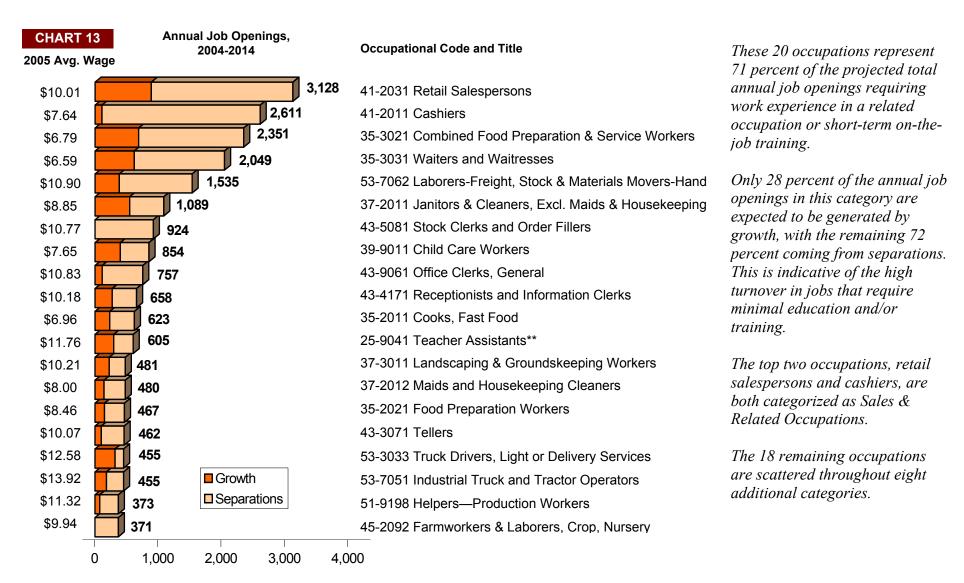
^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs work experience in a related occupation or moderate-term, on-the-job training to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The projected number of job openings each year is posted to the right of each bar.

Twenty Fastest Growing Kentucky Occupations Generally Requiring Work Experience in a Related Occupation or Moderate-Term On-The-Job Training*



^{*} This chart groups occupations generally requiring work experience in a related occupation or moderate-term on-the-job training. Occupations with less than 20 job openings per year are not included in this chart.

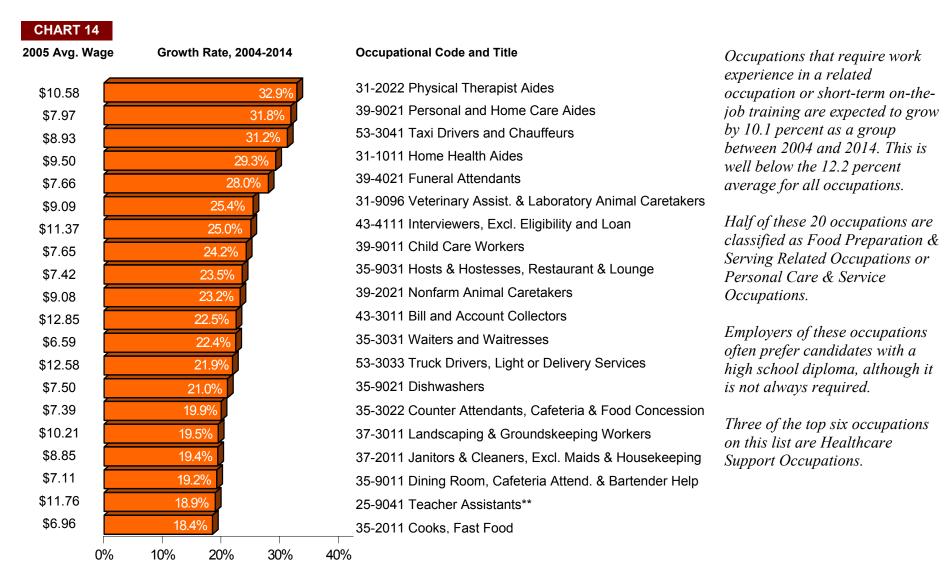
Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring Work Experience in a Related Occupation or Short-Term On-The-Job Training*



^{*} Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person needs work experience in a related occupation or short-term, on-the-job training to perform the duties. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation. The projected number of job openings each year is posted to the right of each bar.

^{**}Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

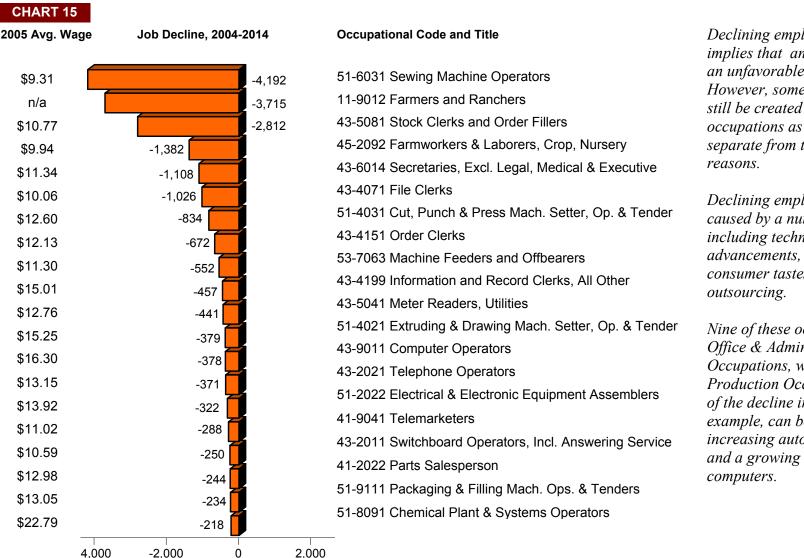
Twenty Fastest Growing Kentucky Occupations Generally Requiring Work Experience in a Related Occupation or Short-Term On-The-Job Training*



^{*} This chart groups occupations generally requiring work experience in a related occupation or short-term on-the- ob training. Occupations with less than 20 job openings per year are not included in this chart.

^{**}Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Twenty Kentucky Occupations Losing the Largest Number of Jobs Between 2004 and 2014

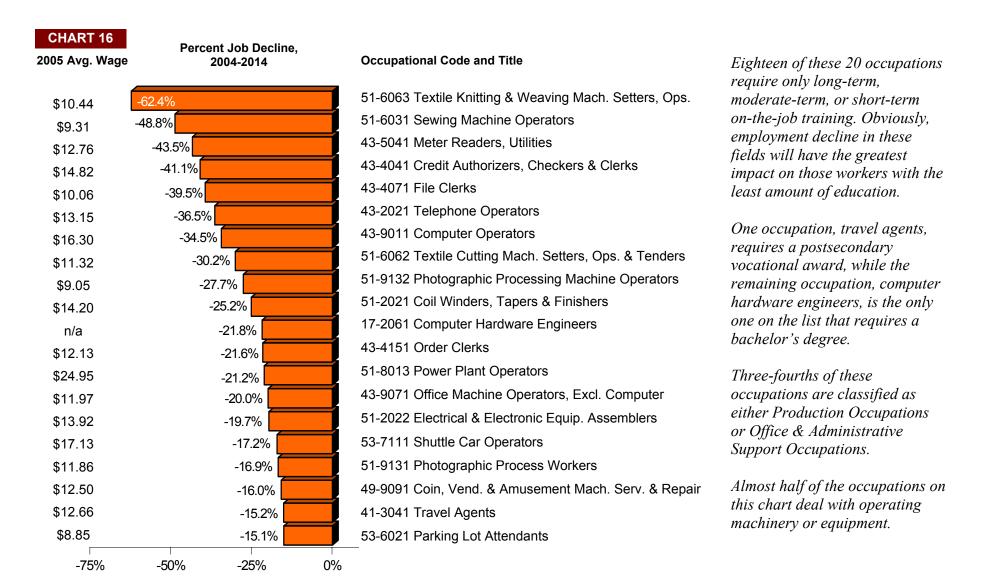


Declining employment generally implies that an occupation has an unfavorable outlook. However, some openings will still be created in these occupations as workers retire or separate from the job for other

Declining employment can be caused by a number of factors. including technological advancements, changes in consumer tastes, and

Nine of these occupations are Office & Administrative Support Occupations, while six more are Production Occupations. Much of the decline in these groups, for example, can be attributed to an increasing automation of tasks and a growing reliance on

Twenty Fastest Declining Kentucky Occupations Between 2004 and 2014*



^{*} Occupations with estimated statewide employment of less than 100 in 2004 or projected statewide employment of less than 100 in 2014 were not included in this chart.

Explanation of Data Elements in the Occupational Outlook Table

Occupational Employment Outlook

Occupational

Code Title

Occupational Codes & Titles used in this

used in this report are based on the Standard Occupational Coding (SOC) structure.

NOTE:

Alphabetical listing beginning on page 65 will help locate a specific occupation within the tables. Employment 2004 2014

Estimated Projected

Estimated

2004 employment is based on the Occupational Employment Statistics (OES) Survey of employers.

Projected

2014 levels of occupational employment are based on projections of industry employment and projections of occupational change factors between 2004 and 2014.

NOTE:

The occupational employment estimates for 2004 to 2014 include all classes of workers such as public and private, wage and salaried workers; agricultural workers; private household workers; and self-employed.

Job Growth 2004 2014

Number Percent

Number

The total number of jobs in an occupation gained or lost over the 2004 to 2014 period.

Percent

Percent change in employment in an occupation over the 10 year period.

NOTE:

In Kentucky, the average growth for all occupations is projected to be 12.2 percent between 2004-2014.

The growth of an occupation is classified as one of the following based on its percent change:

- 1) Declining (< 0%)
- 2) Stable (0% 6.99%)
- 3) Growing (7% 16.99%)
- 4) Fast Growing (17% 23.99%)
- 5) Very Fast Growing (> 24%)

Average Annual Job Openings

Growth Separations Total

Growth

Provides estimates of the average number of job openings expected to occur each year between 2004 and 2014.

Separations

Provides estimates of the average number of job openings expected to occur each year in an occupation from workers separating or leaving for reasons such as retirement, promotion, or simply transferring among occupations. These separations would require replacement workers.

Total

The sum of openings due to **growth** and openings due to **separations** for an occupation.

NOTE:

If employment growth is negative, the total number of job openings will equal the number of separations.

Average Wage

2005

Average Wage in this report always refers to the 2005 mean hourly wage.

NOTE:

Average hourly wages for each of the teacher occupations in this report were calculated from the average annual wage by assuming 9.5 working months per year at 40 hours per week.

Education/ Training Required

Education

and/or
Training
Levels
Required
are
developed by
the Bureau of
Labor
Statistics and
group
occupations
into eleven
categories
(1-11).

NOTE:

The various categories are described in detail on page 74 of this report.

Management Occupations

Kentucky Statewide

Oc	ccupational	Employment* 2004 2014			Change 2004-2014		b Openings Annual 2004	1-2014	Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent		Separations	Total	2005	Req'd~
00-0000	Total, All Occupations	1,936,853	2,172,736	235,883	12.18	23,588	46,467	70,055	15.90	n/a
11-0000	Management Occupations	106,487	121,988	15,501	14.56	1,553	1,989	3,542	36.00	n/a
11-1000	Top Executives	37,470	42,915	5,445	14.53	545	707	1,252	n/a	n/a
11-1011	Chief Executives	9,406	10,931	1,525	16.21	153	177	330	62.62	4
11-1021	General and Operations Managers	28,060	31,980	3,920	13.97	392	529	921	36.05	4
11-1031	Legislators	*	*	*	*	*	*	*	n/a	4
11-2000	Adv., Market., Promo., P.R. & Sales Managers	7,105	8,240	1,135	15.97	114	130	244	n/a	n/a
11-2011	Advertising and Promotions Managers	528	621	93	17.61	9	10	19	27.82	4
11-2021	Marketing Managers	1,904	2,177	273	14.34	27	35	62	38.25	4
11-2022	Sales Managers	3,969	4,622	653	16.45	65	73	138	37.48	4
11-2031	Public Relations Managers	704	820	116	16.48	12	12	24	31.39	4
11-3000	Operations Specialties Managers	18,767	21,381	2,614	13.93	261	327	588	n/a	n/a
11-3011	Administrative Services Managers	2,061	2,345	284	13.78	28	40	68	26.13	4
11-3021	Computer and Information Systems Mgrs.	2,614	3,204	590	22.57	59	48	107	37.58	4
11-3031	Financial Managers	6,317	7,180	863	13.66	86	91	177	36.39	4
11-3041	Compensation and Benefits Managers	762	895	133	17.45	13	13	26	29.80	4
11-3042	Training and Development Managers	439	531	92	20.96	9	7	16	31.32	4
11-3049	Human Resources Managers, All Other	1,022	1,141	119	11.64	12	17	29	35.91	4
11-3051	Industrial Production Managers	2,675	2,846	171	6.39	17	52	69	34.80	8
11-3061	Purchasing Managers	1,271	1,363	92	7.24	9	28	37	31.50	4
11-3071	Transportation, Storage, & Distribution Mgrs.	1,606	1,876	270	16.81	27	31	58	31.51	8
11-9000	Other Management Occupations	37,579	41,304	3,725	9.91	372	718	1,090	n/a	n/a
11-9011	Farm, Ranch, and Other Agricultural Mgrs.	764	687	-77	-10.08	0	10	10	29.60	4
11-9012	Farmers and Ranchers	26,263	22,548	-3,715	-14.15	0	110	110	n/a	9
11-9021	Construction Managers	5,457	6,602	1,145	20.98	115	99	214	30.76	5
11-9031	Education Admin., Preschool and Child Care	749	936	187	24.97	19	19	38	18.36	4
11-9032	Education Admin., Elementary and Secondary	2,677	3,166	489	18.27	49	67	116	n/a	4
11-9033	Education Administrators, Postsecondary	960	1,144	184	19.17	18	24	42	36.37	4
11-9039	Education Administrators, All Other	394	446	52	13.20	5	10	15	30.19	4
11-9041	Engineering Managers	1,955	2,176	221	11.30	22	39	61	41.98	4
11-9051	Food Service Managers	7,175	8,836	1,661	23.15	166	117	283	17.83	8

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Kentucky Statewide

Management Occupations (cont'd)

		Employment*		Change		Job Openings			Average	Educ/
Occupational		2004	2014	2004	2004-2014		ge Annual 2004	Wage	Training	
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
11-9061	Funeral Directors	715	840	125	17.48	13	20	33	24.03	6
11-9081	Lodging Managers	512	593	81	15.82	8	9	17	19.85	8
11-9111	Medical and Health Services Managers	3,786	4,489	703	18.57	70	74	144	34.29	4
11-9121	Natural Sciences Managers	271	295	24	8.86	2	5	7	37.77	4
11-9131	Postmasters and Mail Superintendents	728	703	-25	-3.43	0	14	14	22.91	8
11-9141	Property, Real Estate, Community Assoc. Mgrs.	3,085	3,145	60	1.94	6	58	64	20.33	5
11-9151	Social and Community Service Managers	1,381	1,704	323	23.39	32	27	59	23.12	5
11-9199	Managers, All Other	7,920	8,911	991	12.51	99	154	253	35.20	8

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Business & Financial Operations Occs.

Kentucky Statewide

00	cupational	Employment* 2004 2014		Change 2004-2014			ob Openings e Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations 5	Total	2005	Req'd~
13-0000	Business and Financial Operations Occupations	54,054	61,378	7,324	13.55	732	989	1,721	n/a	n/a
13-1000	Business Operations Specialists	30,407	35,063	4,656	15.31	466	558	1,024	n/a	n/a
13-1011	Agents & Mgrs Artists, Performers & Athletes	*	*	*	*	*	*	*	13.77	4
13-1021	Purchasing Agents and Buyers, Farm Products	204	222	18	8.82	2	7	9	22.74	8
13-1022	Wholesale & Retail Buyers, Excl. Farm Products	1,290	1,440	150	11.63	15	34	49	20.48	8
13-1023	Purchasing Agents, Excl. Wholesale, Retail & Farm	3,272	3,538	266	8.13	27	81	108	22.40	8
13-1031	Claims Adjusters, Examiners, and Investigators	2,246	2,762	516	22.97	52	28	80	22.77	9
13-1032	Insurance Appraisers, Auto Damage	110	136	26	23.64	3	1	4	23.21	9
13-1041	Compliance Ofcr., Excl. Ag., Constr., Health & Trans.	1,932	2,053	121	6.26	12	45	57	22.67	9
13-1051	Cost Estimators	2,182	2,625	443	20.30	44	49	93	23.21	8
13-1061	Emergency Management Specialists	220	270	50	22.73	5	5	10	16.55	8
13-1071	Employment, Recruitment & Placement Specialists	1,647	1,924	277	16.82	28	25	53	16.78	5
13-1072	Compensation, Benefits & Job Analysis Specialists	1,007	1,164	157	15.59	16	15	31	21.54	5
13-1073	Training and Development Specialists	2,888	3,297	409	14.16	41	44	85	20.26	5
13-1079	Human Res., Trng. & Labor Relations Spec., Other	2,735	3,107	372	13.60	37	47	84	21.00	5
13-1081	Logisticians	812	868	56	6.90	6	14	20	26.42	5
13-1111	Management Analysts	2,788	3,237	449	16.10	45	38	83	28.16	4
13-1121	Meeting and Convention Planners	781	884	103	13.19	10	17	27	18.08	5
13-1199	Business Operations Specialists, All Other	6,218	7,443	1,225	19.70	123	106	229	26.13	5
13-2000	Financial Specialists	23,647	26,315	2,668	11.28	267	431	698	n/a	n/a
13-2011	Accountants and Auditors	9,934	11,821	1,887	19.00	189	188	377	23.70	5
13-2021	Appraisers and Assessors of Real Estate	*	*	*	*	*	*	*	31.01	7
13-2031	Budget Analysts	970	1,082	112	11.55	11	16	27	26.06	5
13-2041	Credit Analysts	427	427	0	0.00	0	7	7	24.35	5
13-2051	Financial Analysts	914	1,061	147	16.08	15	14	29	29.11	5
13-2052	Personal Financial Advisors	669	914	245	36.62	25	9	34	31.14	5
13-2053	Insurance Underwriters	352	391	39	11.08	4	6	10	23.35	5
13-2061	Financial Examiners	254	271	17	6.69	2	6	8	30.46	5
13-2071	Loan Counselors	143	172	29	20.28	3	2	5	17.03	5
13-2072	Loan Officers	4,717	4,857	140	2.97	14	76	90	22.14	5
13-2081	Tax Examiners, Collectors, and Revenue Agents	2,541	2,437	-104	-4.09	0	58	58	19.52	5
13-2082	Tax Preparers	*	*	*	*	*	*	*	13.75	10
13-2099	Financial Specialists, All Other	1,208	1,310	102	8.44	10	21	31	20.44	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Computer & Mathematical Occupations

Kentucky Statewide

		Employment*		Change			lob Openings		Average	Educ/
Oc	ccupational	2004	2014	2004-	2014		je Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
15-0000	Computer and Mathematical Occupations	25,428	31,981	6,553	25.77	655	336	991	26.20	n/a
15-1000	Computer Specialists	24,859	31,370	6,511	26.19	651	321	972	n/a	n/a
15-1011	Computer and Information Scientists, Research	*	*	*	*	*	*	*	38.66	2
15-1021	Computer Programmers	3,325	3,233	-92	-2.77	0	79	79	26.95	5
15-1031	Computer Software Engineers, Applications	3,311	4,464	1,153	34.82	115	33	148	31.21	5
15-1032	Computer Software Engineers, Systems Software	1,090	1,481	391	35.87	39	11	50	32.81	5
15-1041	Computer Support Specialists	5,501	6,656	1,155	21.00	116	68	184	17.82	6
15-1051	Computer Systems Analysts	4,207	5,144	937	22.27	94	48	142	31.09	5
15-1061	Database Administrators	1,009	1,360	351	34.79	35	10	45	27.84	5
15-1071	Network and Computer Systems Administrators	2,851	3,987	1,136	39.85	114	32	146	25.88	5
15-1081	Network Systems & Data Communications Analysts	2,645	3,961	1,316	49.75	132	31	163	26.21	5
15-1099	Computer Specialists, All Other	878	1,020	142	16.17	14	10	24	24.05	6
15-2000	Mathematical Scientists	569	611	42	7.38	4	15	19	n/a	n/a
15-2011	Actuaries	*	*	*	*	*	*	*	45.42	4
15-2021	Mathematicians	*	*	*	*	*	*	*	n/a	2
15-2031	Operations Research Analysts	401	427	26	6.48	3	9	12	26.92	3
15-2041	Statisticians	*	*	*	*	*	*	*	27.38	3
15-2099	Mathematical Science Occupations, All Other	*	*	*	*	*	*	*	n/a	3

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Architecture & Engineering Occupations

Kentucky Statewide

Oc	ccupational	Employment* 2004 2014		Chai 2004-	_		Job Openings je Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
17-0000	Architecture and Engineering Occupations	24,670	27,089	2,419	9.81	242	575	817	27.05	n/a
17-1000	Architects, Surveyors, and Cartographers	1,713	1,947	234	13.66	23	38	61	n/a	n/a
17-1011	Architects, Excl. Landscape and Naval	792	901	109	13.76	11	9	20	30.01	5
17-1012	Landscape Architects	127	152	25	19.69	3	2	5	23.40	5
17-1021	Cartographers and Photogrammetrists	157	179	22	14.01	2	5	7	19.38	5
17-1022	Surveyors	637	715	78	12.24	8	22	30	18.87	5
17-2000	Engineers	13,223	14,569	1,346	10.18	135	296	431	n/a	n/a
17-2011	Aerospace Engineers	*	*	*	*	*	*	*	n/a	5
17-2021	Agricultural Engineers	*	*	*	*	*	*	*	28.46	5
17-2031	Biomedical Engineers	*	*	*	*	*	*	*	30.41	5
17-2041	Chemical Engineers	495	472	-23	-4.65	0	15	15	38.42	5
17-2051	Civil Engineers	2,128	2,381	253	11.89	25	34	59	30.16	5
17-2061	Computer Hardware Engineers	784	613	-171	-21.81	0	13	13	n/a	5
17-2071	Electrical Engineers	974	1,050	76	7.80	8	19	27	31.77	5
17-2072	Electronics Engineers, Excl. Computer	565	619	54	9.56	5	11	16	33.67	5
17-2081	Environmental Engineers	276	336	60	21.74	6	5	11	30.19	5
17-2111	Health & Safety Engineers., Excl. Mining Safety	389	426	37	9.51	4	9	13	28.96	5
17-2112	Industrial Engineers	3,057	3,558	501	16.39	50	74	124	30.80	5
17-2121	Marine Engineers and Naval Architects	*	*	*	*	*	*	*	n/a	5
17-2131	Materials Engineers	196	186	-10	-5.10	0	5	5	32.85	5
17-2141	Mechanical Engineers	2,815	3,204	389	13.82	39	77	116	29.79	5
17-2151	Mining & Geological Engineers., Incl. Mining Safety	146	160	14	9.59	1	4	5	30.83	5
17-2161	Nuclear Engineers	*	*	*	*	*	*	*	n/a	5
17-2171	Petroleum Engineers	*	*	*	*	*	*	*	26.87	5
17-2199	Engineers, All Other	1,184	1,309	125	10.56	13	23	36	39.97	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Architecture & Engineering Occs. (cont'd)

Kentucky Statewide

		Employ	Employment*		Change		Job Openings		Average	Educ/
Oc	cupational	2004			2004-2014		je Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
17-3000	Drafters, Engineering, and Mapping Technicians	9,734	10,573	839	8.62	84	242	326	n/a	n/a
17-3011	Architectural and Civil Drafters	1,041	1,053	12	1.15	1	29	30	18.38	7
17-3012	Electrical and Electronics Drafters	280	269	-11	-3.93	0	8	8	19.29	7
17-3013	Mechanical Drafters	770	810	40	5.19	4	22	26	19.49	7
17-3019	Drafters, All Other	136	156	20	14.71	2	3	5	17.18	7
17-3021	Aerospace Engineering and Operations Techs.	*	*	*	*	*	*	*	22.34	6
17-3022	Civil Engineering Technicians	1,849	2,057	208	11.25	21	39	60	20.76	6
17-3023	Electrical and Electronic Engineering Technicians	2,209	2,446	237	10.73	24	46	70	21.15	6
17-3024	Electro-Mechanical Technicians	*	*	*	*	*	*	*	22.45	6
17-3025	Environmental Engineering Technicians	310	355	45	14.52	5	7	12	20.02	6
17-3026	Industrial Engineering Technicians	584	720	136	23.29	14	12	26	21.03	6
17-3027	Mechanical Engineering Technicians	357	396	39	10.92	4	8	12	19.35	6
17-3029	Engineering Techs., Except Drafters, All Other	759	794	35	4.61	4	18	22	19.92	6
17-3031	Surveying and Mapping Technicians	1,312	1,372	60	4.57	6	48	54	14.70	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

		Employ	/ment*	Cha	inge		Job Openings		Average	Educ/
Od	ccupational	2004	2014	2004	-2014	Averag	ge Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
19-0000	Life, Physical, and Social Science Occupations	11,437	13,046	1,609	14.07	161	266	427	21.93	n/a
19-1000	Life Scientists	2,177	2,577	400	18.37	40	50	90	n/a	n/a
19-1011	Animal Scientists	*	*	*	*	*	*	*	n/a	5
19-1012	Food Scientists and Technologists	147	173	26	17.69	3	3	6	28.16	5
19-1013	Soil and Plant Scientists	*	*	*	*	*	*	*	n/a	5
19-1021	Biochemists and Biophysicists	*	*	*	*	*	*	*	n/a	2
19-1022	Microbiologists	*	*	*	*	*	*	*	20.77	2
19-1023	Zoologists and Wildlife Biologists	*	*	*	*	*	*	*	22.15	5
19-1029	Biological Scientists, All Other	176	195	19	10.80	2	6	8	26.76	5
19-1031	Conservation Scientists	225	223	-2	-0.89	0	7	7	26.45	5
19-1032	Foresters	*	*	*	*	*	*	*	20.78	5
19-1041	Epidemiologists	*	*	*	*	*	*	*	n/a	3
19-1042	Medical Scientists, Excl. Epidemiologists	*	*	*	*	*	*	*	n/a	2
19-1099	Life Scientists, All Other	107	122	15	14.02	2	2	4	24.43	5
19-2000	Physical Scientists	1,846	2,013	167	9.05	17	44	61	n/a	n/a
19-2011	Astronomers	*	*	*	*	*	*	*	n/a	2
19-2012	Physicists	*	*	*	*	*	*	*	40.88	2
19-2021	Atmospheric and Space Scientists	*	*	*	*	*	*	*	35.42	5
19-2031	Chemists	566	572	6	1.06	1	19	20	27.88	5
19-2032	Materials Scientists	*	*	*	*	*	*	*	31.92	5
19-2041	Environmental Scientists & Specialists, Incl. Health	705	821	116	16.45	12	13	25	24.86	3
19-2042	Geoscientists, Excl. Hydrologists & Geographers	308	337	29	9.42	3	6	9	24.42	3
19-2043	Hydrologists	*	*	*	*	*	*	*	29.12	3
19-2099	Physical Scientists, All Other	*	*	*	*	*	*	*	31.44	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Life, Physical & Social Science Occs. (cont'd)

Kentucky Statewide

		Employ			inge		lob Openings		Average	Educ/
	cupational	2004	2014	2004			e Annual 2004		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
19-3000	Social Scientists and Related Workers	3,916	4,694	778	19.87	78	92	170	n/a	n/a
19-3011	Economists	*	*	*	*	*	*	*	n/a	3
19-3021	Market Research Analysts	1,182	1,264	82	6.94	8	31	39	27.28	5
19-3022	Survey Researchers	*	*	*	*	*	*	*	17.99	5
19-3031	Clinical, Counseling, and School Psychologists	1,756	2,349	593	33.77	59	38	97	24.24	2
19-3039	Psychologists, All Other	187	220	33	17.65	3	4	7	27.84	3
19-3051	Urban and Regional Planners	138	161	23	16.67	2	5	7	21.49	3
19-3091	Anthropologists and Archeologists	*	*	*	*	*	*	*	22.11	3
19-3092	Geographers	*	*	*	*	*	*	*	n/a	3
19-3093	Historians	*	*	*	*	*	*	*	n/a	3
19-3094	Political Scientists	*	*	*	*	*	*	*	n/a	3
19-3099	Social Scientists and Related Workers, All Other	392	407	15	3.83	2	8	10	25.01	3
19-4000	Life, Physical, and Social Science Technicians	3,498	3,762	264	7.55	26	79	105	n/a	n/a
19-4011	Agricultural and Food Science Technicians	261	277	16	6.13	2	5	7	14.90	6
19-4021	Biological Technicians	*	*	*	*	*	*	*	n/a	6
19-4031	Chemical Technicians	813	792	-21	-2.58	0	20	20	18.09	6
19-4041	Geological and Petroleum Technicians	*	*	*	*	*	*	*	14.72	6
19-4061	Social Science Research Assistants	*	*	*	*	*	*	*	14.67	6
19-4091	Environmental Sci. & Protection Techs., Incl. Health	815	869	54	6.63	5	19	24	16.88	6
19-4092	Forensic Science Technicians	*	*	*	*	*	*	*	16.50	6
19-4093	Forest and Conservation Technicians	320	325	5	1.56	1	8	9	15.13	6
19-4099	Life, Physical & Social Science Techs., All Other	616	706	90	14.61	9	15	24	14.59	6

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Community & Social Service Occupations

Kentucky Statewide

Oc	cupational	Employ 2004	/ment* 2014	Change 2004-2014			lob Openings je Annual 2004		Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
21-0000	Community and Social Services Occupations	29,702	34,928	5,226	17.59	523	535	1,058	16.44	n/a
21-1000	Counselors, Social Workers, Other Specialists	21,722	26,400	4,678	21.54	468	404	872	n/a	n/a
21-1011	Substance Abuse & Behavioral Disorder Couns.	493	622	129	26.17	13	11	24	16.89	3
21-1012	Educational, Vocational, and School Counselors	2,584	2,913	329	12.73	33	59	92	21.77	3
21-1013	Marriage and Family Therapists	194	255	61	31.44	6	4	10	21.49	3
21-1014	Mental Health Counselors	678	956	278	41.00	28	16	44	16.80	3
21-1015	Rehabilitation Counselors	943	994	51	5.41	5	22	27	15.16	3
21-1019	Counselors, All Other	*	*	*	*	*	*	*	n/a	3
21-1021	Child, Family, and School Social Workers	*	*	*	*	*	*	*	16.74	5
21-1022	Medical and Public Health Social Workers	1,236	1,559	323	26.13	32	21	53	17.95	5
21-1023	Mental Health & Substance Abuse Social Workers	2,029	2,726	697	34.35	70	35	105	16.28	3
21-1029	Social Workers, All Other	298	357	59	19.80	6	6	12	16.95	5
21-1091	Health Educators	574	688	114	19.86	11	10	21	18.78	3
21-1092	Probation Officers & Correctional Treatment Spec.	*	*	*	*	*	*	*	17.47	5
21-1093	Social and Human Service Assistants	3,865	4,994	1,129	29.21	113	68	181	11.26	10
21-1099	Community & Social Service Specialists, All Other	505	676	171	33.86	17	9	26	15.72	5
21-2000	Religious Workers	7,980	8,528	548	6.87	55	131	186	n/a	n/a
21-2011	Clergy	3,229	3,432	203	6.29	20	66	86	18.00	3
21-2021	Directors, Religious Activities and Education	3,111	3,456	345	11.09	35	34	69	19.45	5
21-2099	Religious Workers, All Other	*	*	*	*	*	*	*	10.82	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Legal Occupations

Oc	cupational	Employ 2004	/ment* 2014	Cha 2004-	_		Job Openings ge Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
23-0000	Legal Occupations	14,044	17,221	3,177	22.62	318	159	477	28.34	n/a
23-1000	Lawyers, Judges, and Related Workers	7,841	9,724	1,883	24.01	189	101	290	n/a	n/a
23-1011	Lawyers	6,935	8,784	1,849	26.66	185	89	274	40.44	1
23-1021	Adm. Law Judges, Adjudicators & Hearing Officers	*	*	*	*	*	*	*	22.39	4
23-1022	Arbitrators, Mediators, and Conciliators	*	*	*	*	*	*	*	24.23	4
23-1023	Judges, Magistrate Judges, and Magistrates	*	*	*	*	*	*	*	56.63	4
23-2000	Legal Support Workers	6,203	7,497	1,294	20.86	129	58	187	n/a	n/a
23-2011	Paralegals and Legal Assistants	3,294	4,387	1,093	33.18	109	26	135	16.17	6
23-2091	Court Reporters	*	*	*	*	*	*	*	n/a	7
23-2092	Law Clerks	614	667	53	8.63	5	7	12	14.60	5
23-2093	Title Examiners, Abstractors, and Searchers	*	*	*	*	*	*	*	15.26	10
23-2099	Legal Support Workers, All Other	1,760	1,820	60	3.41	6	19	25	18.44	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Education, Training & Library Occupations

Kentucky Statewide

_		Employ		Char			Job Openings		Average	Educ/
	cupational	2004	2014	2004-2			ge Annual 2004		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
25-0000	Education, Training, and Library Occupations	104,927	128,041	23,114	22.03	2,311	2,109	4,420	22.52	n/a
25-1000	Postsecondary Teachers	16,660	21,345	4,685	28.12	469	376	845	n/a	n/a
25-1011	Business Teachers, Postsecondary **	786	1,005	219	27.86	22	18	40	39.56	3
25-1021	Computer Science Teachers, Postsecondary **	484	635	151	31.20	15	11	26	35.22	3
25-1022	Mathematical Science Teachers, Postsecondary **	641	831	190	29.64	19	15	34	31.06	3
25-1031	Architecture Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	2
25-1032	Engineering Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	2
25-1041	Agricultural Sciences Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	2
25-1042	Biological Science Teachers, Postsecondary **	513	658	145	28.27	15	12	27	38.45	2
25-1043	Forestry & Conservation Sci. Teachers, Post. **	*	*	*	*	*	*	*	n/a	2
25-1051	Atmospheric, Earth, Marine & Space Sci., Post. **	*	*	*	*	*	*	*	34.47	2
25-1052	Chemistry Teachers, Postsecondary **	229	290	61	26.64	6	5	11	36.00	2
25-1054	Physics Teachers, Postsecondary **	156	198	42	26.92	4	4	8	36.94	2
25-1061	Anthropology and Archeology Teachers, Post. **	*	*	*	*	*	*	*	30.49	2
25-1062	Area, Ethnic & Cultural Studies Teachers, Post. **	*	*	*	*	*	*	*	36.07	2
25-1063	Economics Teachers, Postsecondary **	154	193	39	25.32	4	4	8	43.55	2
25-1064	Geography Teachers, Postsecondary **	*	*	*	*	*	*	*	29.37	2
25-1065	Political Science Teachers, Postsecondary **	201	255	54	26.87	5	5	10	34.47	2
25-1066	Psychology Teachers, Postsecondary **	467	603	136	29.12	14	11	25	34.22	2
25-1067	Sociology Teachers, Postsecondary **	190	244	54	28.42	5	4	9	29.82	2
25-1069	Social Sciences Teachers, Post., All Other **	*	*	*	*	*	*	*	29.86	2
25-1071	Health Specialties Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	3
25-1072	Nursing Instructors & Teachers, Postsecondary **	563	727	164	29.13	16	13	29	33.02	2
25-1081	Education Teachers, Postsecondary **	903	1,158	255	28.24	26	20	46	31.34	2
25-1082	Library Science Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	2
25-1111	Crim. Justice & Law Enforcement Teachers, Post. **	*	*	*	*	*	*	*	31.81	2
25-1112	Law Teachers, Postsecondary **	*	*	*	*	*	*	*	n/a	1
25-1113	Social Work Teachers, Postsecondary **	204	257	53	25.98	5	5	10	30.87	2
25-1121	Art, Drama, and Music Teachers, Postsecondary **	943	1,199	256	27.15	26	21	47	28.83	3

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74 Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

^{**} Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

0		Employ		Cha			ob Openings	1 0044	Average	Educ/
	cupational	2004	2014	2004-			Annual 2004		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
25-1122	Communications Teachers, Postsecondary **	507	645	138	27.22	14	11	25	30.48	2
25-1123	English Language & Lit. Teachers, Post. **	843	1,084	241	28.59	24	19	43	27.36	3
25-1124	Foreign Language and Literature Teachers, Post. **	256	325	69	26.95	7	6	13	30.06	3
25-1125	History Teachers, Postsecondary **	294	376	82	27.89	8	7	15	31.39	2
25-1126	Philosophy and Religion Teachers, Post. **	349	443	94	26.93	9	8	17	32.32	2
25-1191	Graduate Teaching Assistants	*	*	*	*	*	*	*	n/a	5
25-1192	Home Economics Teachers, Postsecondary **	108	138	30	27.78	3	2	5	30.48	3
25-1193	Recreation and Fitness Studies Teachers, Post. **	182	232	50	27.47	5	4	9	29.88	3
25-1194	Vocational Education Teachers, Postsecondary	2,749	3,500	751	27.32	75	62	137	26.14	4
25-1199	Postsecondary Teachers, All Other **	1,350	1,797	447	33.11	45	31	76	29.07	2
25-2000	Primary, Secondary & Special Ed. Teachers	46,900	56,999	10,099	21.53	1,010	1,032	2,042	n/a	n/a
25-2011	Preschool Teachers, Excl. Special Education	5,065	6,555	1,490	29.42	149	60	209	13.56	7
25-2012	Kindergarten Teachers, Excl. Special Education **	*	*	*	*	*	*	*	23.86	5
25-2021	Elementary School Teachers, Excl. Special Ed. **	16,287	19,629	3,342	20.52	334	359	693	24.50	5
25-2022	Middle School Teachers, Excl. Special & Voc. Ed. **	7,206	8,297	1,091	15.14	109	159	268	24.88	5
25-2023	Vocational Education Teachers, Middle School **	195	222	27	13.85	3	4	7	27.45	4
25-2031	Sec. School Teachers, Excl. Special and Voc. Ed. **	9,051	10,684	1,633	18.04	163	255	418	25.53	5
25-2032	Vocational Ed. Teachers, Secondary School **	666	787	121	18.17	12	19	31	26.62	4
25-2041	Spec. Ed. Teachers, Pre., Kinder. & Elem. School **	2,999	3,971	972	32.41	97	72	169	24.30	5
25-2042	Special Education Teachers, Middle School **	1,578	2,043	465	29.47	47	38	85	23.95	5
25-2043	Special Education Teachers, Secondary School **	1,715	2,144	429	25.01	43	41	84	25.09	5
25-3000	Other Teachers and Instructors	17,066	21,059	3,993	23.40	399	210	609	n/a	n/a
25-3011	Adult Literacy, Remedial Ed. & GED Teachers	1,100	1,350	250	22.73	25	14	39	19.92	5
25-3021	Self-Enrichment Education Teachers	*	*	*	*	*	*	*	19.74	8
25-3099	Teachers and Instructors, All Other **	14,169	17,374	3,205	22.62	321	174	495	15.71	5
25-4000	Librarians, Curators, and Archivists	4,128	4,658	530	12.84	53	120	173	n/a	n/a
25-4011	Archivists	*	*	*	*	*	*	*	18.42	3
25-4012	Curators	*	*	*	*	*	*	*	20.13	3
25-4013	Museum Technicians and Conservators	*	*	*	*	*	*	*	14.89	3
25-4021	Librarians	2,317	2,559	242	10.44	24	55	79	20.08	3
25-4031	Library Technicians	*	*	*	*	*	*	*	10.83	7

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch
** Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Education, Training & Library Occs. (cont'd)

	cupational	Employ 2004	2014	2004-		Averag	Job Openings je Annual 2004		Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
25-9000	Other Education, Training, and Library Occupations	20,173	23,980	3,807	18.87	381	372	753	n/a	n/a
25-9011	Audio-Visual Collections Specialists	*	*	*	*	*	*	*	n/a	10
25-9021	Farm and Home Management Advisors	*	*	*	*	*	*	*	25.43	5
25-9031	Instructional Coordinators	1,907	2,270	363	19.04	36	29	65	23.93	3
25-9041	Teacher Assistants **	15,820	18,814	2,994	18.93	299	306	605	11.76	11
25-9099	Education, Training, and Library Workers, All Other	1,866	2,265	399	21.38	40	28	68	16.86	5

^{*} Employment under 100 and unreliable data suppressed

n/a - Not Available

[~] Education/Training Required Codes- Page 74

Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

^{**} Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Oc	ccupational	Employ 2004	ment* 2014	Cha 2004-			Job Openings je Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
27-0000	Arts, Design, Entertainment, Sports & Media Occs.	22,607	25,849	3,242	14.34	324	426	750	16.00	n/a
27-1000	Art and Design Workers	7,470	8,130	660	8.84	66	110	176	n/a	n/a
27-1011	Art Directors	*	*	*	*	*	*	*	30.05	4
27-1012	Craft Artists	*	*	*	*	*	*	*	7.64	9
27-1013	Fine Artists, Incl. Painters, Sculptors & Illustrators	154	167	13	8.44	1	3	4	16.14	9
27-1014	Multi-Media Artists and Animators	*	*	*	*	*	*	*	25.38	5
27-1019	Artists and Related Workers, All Other	*	*	*	*	*	*	*	21.77	9
27-1021	Commercial and Industrial Designers	418	433	15	3.59	2	6	8	23.59	5
27-1022	Fashion Designers	*	*	*	*	*	*	*	n/a	6
27-1023	Floral Designers	2,002	2,041	39	1.95	4	27	31	9.04	10
27-1024	Graphic Designers	2,094	2,321	227	10.84	23	28	51	17.48	5
27-1025	Interior Designers	476	539	63	13.24	6	6	12	19.39	6
27-1026	Merchandise Displayers and Window Trimmers	904	1,004	100	11.06	10	12	22	9.90	10
27-1027	Set and Exhibit Designers	*	*	*	*	*	*	*	17.04	5
27-1029	Designers, All Other	*	*	*	*	*	*	*	20.99	5
27-2000	Entertainers, Performers, Sports & Related	4,868	6,062	1,194	24.53	119	111	230	n/a	n/a
27-2011	Actors	*	*	*	*	*	*	*	n/a	9
27-2012	Producers and Directors	729	830	101	13.85	10	11	21	n/a	4
27-2021	Athletes and Sports Competitors	*	*	*	*	*	*	*	n/a	9
27-2022	Coaches and Scouts	1,804	2,160	356	19.73	50	32	82	n/a	9
27-2023	Umpires, Referees, and Other Sports Officials	189	223	34	17.99	3	4	7	n/a	9
27-2031	Dancers	*	*	*	*	*	*	*	8.07	9
27-2032	Choreographers	374	450	76	20.32	6	5	11	15.16	8
27-2041	Music Directors and Composers	*	*	*	*	*	*	*	n/a	4
27-2042	Musicians and Singers	712	835	123	17.28	12	15	27	n/a	9
27-2099	Entertainers & Performers, Sports & Related, Other	467	521	54	11.56	5	6	11	n/a	9

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

		Employ		Cha			lob Openings		Average	Educ/
	cupational	2004	2014	2004-			e Annual 2004		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
27-3000	Media and Communication Workers	7,130	7,835	705	9.89	71	137	208	n/a	n/a
27-3011	Radio and Television Announcers	998	922	-76	-7.62	0	25	25	9.21	9
27-3012	Public Address System and Other Announcers	*	*	*	*	*	*	*	11.43	9
27-3021	Broadcast News Analysts	135	130	-5	-3.70	0	3	3	29.09	4
27-3022	Reporters and Correspondents	670	665	-5	-0.75	0	16	16	13.88	4
27-3031	Public Relations Specialists	2,652	3,035	383	14.44	38	38	76	18.91	5
27-3041	Editors	883	945	62	7.02	6	21	27	17.99	5
27-3042	Technical Writers	274	308	34	12.41	3	8	11	22.35	5
27-3043	Writers and Authors	833	1,053	220	26.41	22	14	36	20.80	5
27-3091	Interpreters and Translators	248	309	61	24.60	6	3	9	20.17	9
27-3099	Media and Communication Workers, All Other	296	331	35	11.82	4	4	8	25.16	9
27-4000	Media and Communication Equipment Workers	3,139	3,822	683	21.76	68	68	136	n/a	n/a
27-4011	Audio and Video Equipment Technicians	243	280	37	15.23	4	6	10	14.79	9
27-4012	Broadcast Technicians	488	501	13	2.66	1	12	13	15.76	6
27-4014	Sound Engineering Technicians	*	*	*	*	*	*	*	14.54	7
27-4021	Photographers	1,862	2,403	541	29.05	54	38	92	11.86	9
27-4031	Camera Operators, TV, Video & Motion Picture	266	295	29	10.90	3	6	9	18.97	10
27-4032	Film and Video Editors	*	*	*	*	*	*	*	20.13	5
27-4099	Media and Communication Equip. Workers, Other	*	*	*	*	*	*	*	17.11	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Healthcare Practitioners & Technical Occs.

Kentucky Statewide

00	cupational	Employ 2004	ment* 2014	Char 2004-2	_		lob Openings je Annual 2004	1 2014	Average	Educ/ Training
Code	Title		Projected	Number			Separations	Total	Wage 2005	Req'd~
	Healthcare Practitioners and Technical Occupations	103,770	124,986	21,216	20.45	2,122	1,975	4,097	24.45	n/a
	·						· · · · · · · · · · · · · · · · · · ·			
29-1000	Health Diagnosing and Treating Practitioners	59,891	73,785	13,894	23.20	1,389	1,195	2,584	n/a	n/a
29-1011	Chiropractors	463	623	160	34.56	16	9	25	36.39	1
29-1021	Dentists, General	963	1,104	141	14.64	14	16	30	59.58	1
29-1022	Oral and Maxillofacial Surgeons	*	*	*	*	*	*	*	97.40	1
29-1023	Orthodontists	*	*	*	*	*	*	*	95.81	1
29-1031	Dietitians and Nutritionists	834	1,015	181	21.70	18	22	40	20.64	5
29-1041	Optometrists	463	571	108	23.33	11	13	24	42.11	1
29-1051	Pharmacists	3,420	4,089	669	19.56	67	66	133	42.73	1
29-1061	Anesthesiologists	*	*	*	*	*	*	*	94.44	1
29-1062	Family and General Practitioners	991	1,152	161	16.25	16	13	29	67.49	1
29-1063	Internists, General	673	779	106	15.75	11	9	20	69.31	1
29-1064	Obstetricians and Gynecologists	619	710	91	14.70	9	8	17	87.21	1
29-1065	Pediatricians, General	*	*	*	*	*	*	*	67.53	1
29-1066	Psychiatrists	244	307	63	25.82	6	3	9	84.53	1
29-1067	Surgeons	941	1,076	135	14.35	14	13	27	95.47	1
29-1069	Physicians and Surgeons, All Other	2,353	2,722	369	15.68	37	31	68	60.42	1
29-1071	Physician Assistants	633	885	252	39.81	25	10	35	31.30	5
29-1081	Podiatrists	*	*	*	*	*	*	*	83.89	1
29-1111	Registered Nurses	38,508	47,734	9,226	23.96	923	806	1,729	24.07	6
29-1121	Audiologists	*	*	*	*	*	*	*	23.09	1
29-1122	Occupational Therapists	1,187	1,615	428	36.06	43	16	59	27.42	3
29-1123	Physical Therapists	2,104	2,819	715	33.98	72	21	93	30.58	3
29-1124	Radiation Therapists	133	149	16	12.03	2	3	5	28.60	6
29-1125	Recreational Therapists	136	151	15	11.03	2	3	5	15.72	5
29-1126	Respiratory Therapists	1,545	1,880	335	21.68	34	51	85	19.64	6
29-1127	Speech-Language Pathologists	1,612	1,887	275	17.06	28	40	68	24.65	3
29-1129	Therapists, All Other	237	289	52	21.94	5	5	10	24.15	5
29-1131	Veterinarians	882	1,108	226	25.62	23	21	44	34.51	1
29-1199	Health Diagnosing & Treating Practitioners, Other	174	219	45	25.86	5	4	9	n/a	5

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Occ	cupational	Employ 2004	ment* 2014	Cha 2004-	_		Job Openings Je Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
29-2000	Health Technologists and Technicians	42,028	49,048	7,020	16.70	702	741	1,443	n/a	n/a
29-2011	Medical and Clinical Laboratory Technologists	2,542	2,913	371	14.59	37	69	106	21.08	5
29-2012	Medical and Clinical Laboratory Technicians	1,476	1,738	262	17.75	26	40	66	15.92	6
29-2021	Dental Hygienists	1,476	2,014	538	36.45	54	13	67	23.02	6
29-2031	Cardiovascular Technologists and Technicians	1,220	1,427	207	16.97	21	23	44	17.41	6
29-2032	Diagnostic Medical Sonographers	448	539	91	20.31	9	8	17	24.54	6
29-2033	Nuclear Medicine Technologists	271	307	36	13.28	4	5	9	23.64	6
29-2034	Radiologic Technologists and Technicians	3,674	4,363	689	18.75	69	69	138	20.10	6
29-2041	Emergency Medical Technicians and Paramedics	4,457	5,042	585	13.13	59	51	110	11.21	7
29-2051	Dietetic Technicians	155	181	26	16.77	3	2	5	12.40	10
29-2052	Pharmacy Technicians	5,343	6,463	1,120	20.96	112	70	182	10.82	10
29-2053	Psychiatric Technicians	871	1,025	154	17.68	15	11	26	11.03	10
29-2054	Respiratory Therapy Technicians	829	808	-21	-2.53	0	11	11	16.15	6
29-2055	Surgical Technologists	1,603	1,940	337	21.02	34	21	55	15.57	7
29-2056	Veterinary Technologists and Technicians	827	1,151	324	39.18	32	11	43	10.78	6
29-2061	Licensed Practical & Licensed Voc. Nurses	12,056	13,464	1,408	11.68	141	263	404	15.83	7
29-2071	Medical Records & Health Info. Technicians	2,685	3,272	587	21.86	59	38	97	13.19	6
29-2081	Opticians, Dispensing	809	916	107	13.23	11	14	25	13.50	9
29-2091	Orthotists and Prosthetists	*	*	*	*	*	*	*	24.38	5
29-2099	Health Technologists and Technicians, All Other	1,233	1,428	195	15.82	20	22	42	16.74	7
29-9000	Other Healthcare Practitioners & Technical Occs.	1,851	2,153	302	16.32	30	38	68	n/a	n/a
29-9011	Occupational Health and Safety Specialists	739	850	111	15.02	11	16	27	24.33	5
29-9012	Occupational Health and Safety Technicians	429	447	18	4.20	2	9	11	26.43	7
29-9091	Athletic Trainers	171	228	57	33.33	6	4	10	n/a	5
29-9099	Healthcare Practitioners & Tech. Workers, Other	512	628	116	22.66	12	9	21	23.74	7

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74

Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Healthcare Support Occupations

Kentucky Statewide Occupational Employment Outlook

		Employ	/ment*	Cha	nge		Job Openings		Average	Educ/
0	ccupational	2004	2014	2004-	2014	Averag	ge Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
31-0000	Healthcare Support Occupations	51,510	64,085	12,575	24.41	1,258	813	2,071	10.79	n/a
31-1000	Nursing, Psychiatric, and Home Health Aides	31,747	38,499	6,752	21.27	675	416	1,091	n/a	n/a
31-1011	Home Health Aides	4,546	5,876	1,330	29.26	133	60	193	9.50	11
31-1012	Nursing Aides, Orderlies, and Attendants	26,690	32,081	5,391	20.20	539	350	889	9.78	7
31-1013	Psychiatric Aides	*	*	*	*	*	*	*	9.40	11
31-2000	Occupational & Physical Therapist Assis. & Aides	2,013	2,771	758	37.66	76	33	109	n/a	n/a
31-2011	Occupational Therapist Assistants	193	259	66	34.20	7	2	9	19.88	6
31-2012	Occupational Therapist Aides	*	*	*	*	*	*	*	10.88	11
31-2021	Physical Therapist Assistants	1,145	1,610	465	40.61	47	19	66	18.65	6
31-2022	Physical Therapist Aides	627	833	206	32.85	21	11	32	10.58	11
31-9000	Other Healthcare Support Occupations	17,750	22,815	5,065	28.54	507	365	872	n/a	n/a
31-9011	Massage Therapists	415	543	128	30.84	13	8	21	12.24	7
31-9091	Dental Assistants	3,809	5,181	1,372	36.02	137	107	244	12.70	10
31-9092	Medical Assistants	6,002	8,269	2,267	37.77	227	111	338	11.35	10
31-9093	Medical Equipment Preparers	911	1,056	145	15.92	15	17	32	11.82	11
31-9094	Medical Transcriptionists	2,015	2,426	411	20.40	41	37	78	13.25	7
31-9095	Pharmacy Aides	420	477	57	13.57	6	8	14	9.05	11
31-9096	Veterinary Assist. & Laboratory Animal Caretakers	930	1,166	236	25.38	24	17	41	9.09	11
31-9099	Healthcare Support Workers, All Other	3,248	3,697	449	13.82	45	60	105	11.47	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Protective Service Occupations

Kentucky Statewide

Oc	cupational	Employ 2004	/ment* 2014	Cha 2004	_		Job Openings je Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent		Separations	Total	2005	Req'd~
33-0000	Protective Service Occupations	33,949	38,568	4,619	13.61	462	962	1,424	13.46	n/a
33-1000	Managers, Protective Service Workers	3,607	4,169	562	15.58	56	118	174	n/a	n/a
33-1011	Managers of Correctional Officers	*	*	*	*	*	*	*	18.60	8
33-1012	Managers of Police and Detectives	1,253	1,500	247	19.71	25	41	66	25.35	8
33-1021	Managers of Fire Fighting and Prevention Workers	833	1,064	231	27.73	23	34	57	20.48	8
33-1099	Managers, Protective Service Workers, All Other	665	651	-14	-2.11	0	17	17	17.86	8
33-2000	Fire Fighting and Prevention Workers	3,488	4,503	1,015	29.10	102	101	203	n/a	n/a
33-2011	Fire Fighters	3,345	4,365	1,020	30.49	102	97	199	13.47	9
33-2021	Fire Inspectors and Investigators	141	136	-5	-3.55	0	4	4	17.70	8
33-2022	Forest Fire Inspectors and Prevention Specialists	*	*	*	*	*	*	*	n/a	8
33-3000	Law Enforcement Workers	12,513	14,513	2,000	15.98	200	293	493	n/a	n/a
33-3011	Bailiffs	*	*	*	*	*	*	*	9.33	10
33-3012	Correctional Officers and Jailers	5,446	6,149	703	12.91	70	113	183	12.64	10
33-3021	Detectives and Criminal Investigators	570	657	87	15.26	9	15	24	24.35	8
33-3031	Fish and Game Wardens	*	*	*	*	*	*	*	17.37	6
33-3041	Parking Enforcement Workers	*	*	*	*	*	*	*	10.80	11
33-3051	Police and Sheriff's Patrol Officers	5,800	6,901	1,101	18.98	110	150	260	16.66	9
33-3052	Transit and Railroad Police	*	*	*	*	*	*	*	n/a	9
33-9000	Other Protective Service Workers	14,341	15,383	1,042	7.27	104	451	555	n/a	n/a
33-9011	Animal Control Workers	232	275	43	18.53	4	16	20	9.56	10
33-9021	Private Detectives and Investigators	402	474	72	17.91	7	9	16	12.85	8
33-9031	Gaming Surveillance Ofcrs. & Gaming Investigators	*	*	*	*	*	*	*	n/a	10
33-9032	Security Guards	10,886	11,478	592	5.44	59	237	296	9.60	11
33-9091	Crossing Guards	175	219	44	25.14	4	6	10	10.91	11
33-9092	Lifeguards, Ski Patrol & Rec. Protective Workers	993	1,170	177	17.82	18	69	87	7.62	11
33-9099	Protective Service Workers, All Other	1,652	1,767	115	6.96	12	115	127	14.37	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Food Preparation & Serving Related Occs.

Kentucky Statewide

00	ccupational	Employ 2004	ment* 2014	Cha 2004-	_		Job Openings je Annual 200		Average Wage	Educ/ Training
Code	Title		Projected		Percent		Separations	Total	2005	Req'd~
35-0000	Food Preparation and Serving Related Occupations	146,543	173,431	26,888	18.35	2,689	5,701	8,390	7.78	n/a
35-1000	Supervisors, Food Preparation & Serving Workers	15,083	18,076	2,993	19.84	299	368	667	n/a	n/a
35-1011	Chefs and Head Cooks	1,598	1,922	324	20.28	32	47	79	12.71	8
35-1012	Managers of Food Preparation & Serving Workers	13,485	16,154	2,669	19.79	267	321	588	11.65	8
35-2000	Cooks and Food Preparation Workers	44,036	50,860	6,824	15.50	682	1,403	2,085	n/a	n/a
35-2011	Cooks, Fast Food	12,607	14,932	2,325	18.44	233	390	623	6.96	11
35-2012	Cooks, Institution and Cafeteria	10,008	10,413	405	4.05	41	310	351	9.16	10
35-2013	Cooks, Private Household	*	*	*	*	*	*	*	n/a	9
35-2014	Cooks, Restaurant	10,015	12,244	2,229	22.26	223	310	533	8.96	9
35-2015	Cooks, Short Order	2,498	2,844	346	13.85	35	77	112	7.79	11
35-2019	Cooks, All Other	*	*	*	*	*	*	*	n/a	10
35-2021	Food Preparation Workers	8,887	10,412	1,525	17.16	153	314	467	8.46	11
35-3000	Food and Beverage Serving Workers	75,462	90,025	14,563	19.30	1,456	3,536	4,992	n/a	n/a
35-3011	Bartenders	3,648	4,244	596	16.34	60	144	204	7.19	11
35-3021	Combined Food Preparation & Service Workers	38,333	45,233	6,900	18.00	690	1,661	2,351	6.79	11
35-3022	Counter Attendants, Cafeteria & Food Concession	3,503	4,201	698	19.93	70	229	299	7.39	11
35-3031	Waiters and Waitresses	27,731	33,948	6,217	22.42	622	1,427	2,049	6.59	11
35-3041	Food Servers, Nonrestaurant	2,247	2,399	152	6.76	15	75	90	7.48	11
35-9000	Other Food Preparation and Serving Related Workers	11,962	14,470	2,508	20.97	251	395	646	n/a	n/a
35-9011	Dining Room, Cafeteria Attend. & Bartender Help.	2,805	3,343	538	19.18	54	94	148	7.11	11
35-9021	Dishwashers	5,178	6,265	1,087	20.99	109	175	284	7.50	11
35-9031	Hosts & Hostesses, Restaurant & Lounge	3,705	4,577	872	23.54	87	118	205	7.42	11
35-9099	Food Prep. & Serving Related Workers, Other	274	285	11	4.01	1	9	10	9.39	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74 Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Building, Grounds Cleaning & Maintenance Occs.

Kentucky Statewide

Occupational Employment Outlook

		Employ	/ment*	Cha	nge		Job Openings		Average	Educ/
0	ccupational	2004	2014	2004	-2014	Averag	ge Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
37-0000	Building & Grounds Cleaning & Maintenance Occs.	65,259	76,280	11,021	16.89	1,102	1,294	2,396	9.40	n/a
37-1000	Supervisors, Bldg. & Grounds Cleaning Workers	6,789	8,156	1,367	20.14	137	119	256	n/a	n/a
37-1011	Managers of Housekeeping & Janitorial Workers	3,884	4,567	683	17.58	68	92	160	12.01	8
37-1012	Managers of Landscaping, Lawn & Grounds. Work.	2,905	3,589	684	23.55	68	27	95	15.70	8
37-2000	Building Cleaning and Pest Control Workers	45,230	52,317	7,087	15.67	709	888	1,597	n/a	n/a
37-2011	Janitors & Cleaners, Excl. Maids & Housekeeping	28,404	33,906	5,502	19.37	550	539	1,089	8.85	11
37-2012	Maids and Housekeeping Cleaners	16,024	17,464	1,440	8.99	144	336	480	8.00	11
37-2019	Building Cleaning Workers, All Other	*	*	*	*	*	*	*	n/a	11
37-2021	Pest Control Workers	777	916	139	17.89	14	12	26	12.17	10
37-3000	Grounds Maintenance Workers	13,240	15,807	2,567	19.39	257	288	545	n/a	n/a
37-3011	Landscaping and Groundskeeping Workers	11,688	13,961	2,273	19.45	227	254	481	10.21	11
37-3012	Pesticide Handlers, Sprayers & Applicators, Veg.	307	372	65	21.17	7	7	14	14.47	10
37-3013	Tree Trimmers and Pruners	1,085	1,272	187	17.24	19	24	43	10.25	11
37-3019	Grounds Maintenance Workers, All Other	*	*	*	*	*	*	*	11.22	11

^{*} Employment under 100 and unreliable data suppressed

Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

n/a - Not Available

[~] Education/Training Required Codes- Page 74

		Employ		Chai			lob Openings		Average	Educ/
	cupational	2004	2014	2004-			e Annual 200		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
39-0000	Personal Care and Service Occupations	51,074	62,725	11,651	22.81	1,165	1,238	2,403	10.63	n/a
39-1000	Supervisors, Personal Care and Service Workers	2,977	3,673	696	23.38	70	75	145	n/a	n/a
39-1011	Gaming Supervisors	*	*	*	*	*	*	*	n/a	8
39-1021	Managers of Personal Service Workers	2,959	3,657	698	23.59	70	74	144	13.30	8
39-2000	Animal Care and Service Workers	3,976	4,931	955	24.02	96	95	191	n/a	n/a
39-2011	Animal Trainers	855	1,087	232	27.13	23	18	41	13.62	10
39-2021	Nonfarm Animal Caretakers	3,121	3,844	723	23.17	72	78	150	9.08	11
39-3000	Entertainment Attendants and Related Workers	3,988	4,569	581	14.57	58	149	207	n/a	n/a
39-3012	Gaming and Sports Book Writers and Runners	*	*	*	*	*	*	*	15.23	11
39-3021	Motion Picture Projectionists	157	160	3	1.91	0	8	8	10.25	11
39-3031	Ushers, Lobby Attendants, and Ticket Takers	1,044	1,162	118	11.30	12	60	72	7.34	11
39-3091	Amusement and Recreation Attendants	1,794	2,065	271	15.11	27	52	79	7.61	11
39-3092	Costume Attendants	*	*	*	*	*	*	*	n/a	11
39-3093	Locker Room, Coatroom & Dressing Room Attend.	193	204	11	5.70	1	6	7	8.95	11
39-3099	Entertainment Attend. & Related Workers, Other	*	*	*	*	*	*	*	8.77	10
39-4000	Funeral Service Workers	1,014	1,280	266	26.23	27	21	48	n/a	n/a
39-4011	Embalmers	*	*	*	*	*	*	*	16.78	7
39-4021	Funeral Attendants	665	851	186	27.97	19	14	33	7.66	11
39-5000	Personal Appearance Workers	7,233	9,041	1,808	25.00	181	147	328	n/a	n/a
39-5011	Barbers	*	*	*	*	*	*	*	16.58	7
39-5012	Hairdressers, Hairstylists, and Cosmetologists	5,758	7,188	1,430	24.84	143	111	254	10.52	7
39-5091	Makeup Artists, Theatrical and Performance	*	*	*	*	*	*	*	n/a	7
39-5092	Manicurists and Pedicurists	244	307	63	25.82	6	5	11	10.45	7
39-5093	Shampooers	*	*	*	*	*	*	*	n/a	11
39-5094	Skin Care Specialists	*	*	*	*	*	*	*	12.25	7
39-6000	Transportation, Tourism, and Lodging Attendants	3,320	3,759	439	13.22	44	55	99	n/a	n/a
39-6011	Baggage Porters and Bellhops	293	292	-1	-0.34	0	8	8	7.63	11
39-6012	Concierges	*	*	*	*	*	*	*	8.28	10
39-6021	Tour Guides and Escorts	445	516	71	15.96	7	12	19	9.57	10
39-6022	Travel Guides	*	*	*	*	*	*	*	10.39	10
39-6031	Flight Attendants	*	*	*	*	*	*	*	28.04	9
39-6032	Transp. Attend., Excl. Flight Attend. & Bag Porters	*	*	*	*	*	*	*	n/a	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Personal Care & Service Occs. (cont'd)

		Employment*		Cha	nge	•	lob Openings	Average	Educ/	
Occ	cupational	2004	2014	2004-	2014	Averag	e Annual 2004	1-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
39-9000	Other Personal Care and Service Workers	28,566	35,472	6,906	24.18	691	696	1,387	n/a	n/a
39-9011	Child Care Workers	16,594	20,613	4,019	24.22	402	452	854	7.65	11
39-9021	Personal and Home Care Aides	3,761	4,958	1,197	31.83	120	60	180	7.97	11
39-9031	Fitness Trainers and Aerobics Instructors	1,296	1,590	294	22.69	29	30	59	11.33	7
39-9032	Recreation Workers	4,324	5,056	732	16.93	73	99	172	10.40	11
39-9041	Residential Advisors	1,703	2,238	535	31.42	54	36	90	9.97	10
39-9099	Personal Care and Service Workers, All Other	888	1,017	129	14.53	13	19	32	9.53	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Sales & Related Occupations

Kentucky Statewide

00	cupational	Employ 2004	ment* 2014	Cha 2004-	_		Job Openings ge Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
							•			
41-0000	Sales and Related Occupations	210,090	230,146	20,056	9.55	2,006	6,883	8,889	13.43	n/a
41-1000	Supervisors, Sales Workers	36,300	39,597	3,297	9.08	330	659	989	n/a	n/a
41-1011	Managers of Retail Sales Workers	29,179	31,742	2,563	8.78	256	524	780	15.23	8
41-1012	Managers of Non-Retail Sales Workers	7,121	7,855	734	10.31	73	134	207	25.52	8
41-2000	Retail Sales Workers	122,252	132,990	10,738	8.78	1,074	5,062	6,136	n/a	n/a
41-2011	Cashiers	51,403	52,502	1,099	2.14	110	2,501	2,611	7.64	11
41-2012	Gaming Change Persons and Booth Cashiers	*	*	*	*	*	*	*	n/a	11
41-2021	Counter and Rental Clerks	5,890	6,878	988	16.77	99	226	325	8.70	11
41-2022	Parts Salespersons	3,374	3,130	-244	-7.23	0	97	97	12.98	10
41-2031	Retail Salespersons	61,578	70,473	8,895	14.45	890	2,238	3,128	10.01	11
41-3000	Sales Representatives, Services	13,947	15,736	1,789	12.83	179	271	450	n/a	n/a
41-3011	Advertising Sales Agents	1,546	1,724	178	11.51	18	30	48	22.34	10
41-3021	Insurance Sales Agents	4,866	5,420	554	11.39	55	116	171	26.38	5
41-3031	Securities, Commodities & Financial Serv. Sales	2,765	3,162	397	14.36	40	31	71	43.15	5
41-3041	Travel Agents	619	525	-94	-15.19	0	14	14	12.66	7
41-3099	Sales Representatives, Services, All Other	4,151	4,905	754	18.16	75	79	154	22.10	10
41-4000	Sales Reps., Wholesale and Manufacturing	21,050	24,331	3,281	15.59	328	553	881	n/a	n/a
41-4011	Sales Reps., Wholesale & Manuf., Tech. & Sci.	4,687	5,360	673	14.36	67	123	190	32.48	10
41-4012	Sales Reps., Wholesale & Manuf., Excl. Tech. & Sci.	16,363	18,971	2,608	15.94	261	430	691	24.64	10
41-9000	Other Sales and Related Workers	16,541	17,492	951	5.75	95	339	434	n/a	n/a
41-9011	Demonstrators and Product Promoters	542	598	56	10.33	6	12	18	11.72	10
41-9012	Models	*	*	*	*	*	*	*	n/a	10
41-9021	Real Estate Brokers	*	*	*	*	*	*	*	14.36	8
41-9022	Real Estate Sales Agents	5,934	6,802	868	14.63	87	118	205	16.74	7
41-9031	Sales Engineers	315	345	30	9.52	3	9	12	29.77	5
41-9041	Telemarketers	2,624	2,336	-288	-10.98	0	43	43	11.02	11
41-9091	Door-To-Door Sales, News, Street Vend. & Related	*	*	*	*	*	*	*	16.90	11
41-9099	Sales and Related Workers, All Other	2,153	2,424	271	12.59	27	41	68	16.44	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Office & Administrative Support Occs.

Kentucky Statewide

Occ	cupational	Employ 2004	ment* 2014	Chai 2004-	_		lob Openings e Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number	_		Separations	Total	2005	Req'd~
43-0000	Office and Administrative Support Occupations	301,267	313,405	12,138	4.03	1,214	6,949	8,163	12.95	n/a
43-1000	Supervisors, Office & Admin. Support Workers	19,119	20,314	1,195	6.25	120	410	530	n/a	n/a
43-1011	Managers of Office & Admin. Support Workers	19,119	20,314	1,195	6.25	120	410	530	18.68	8
43-2000	Communications Equipment Operators	3,354	2,728	-626	-18.66	0	86	86	n/a	n/a
43-2011	Switchboard Operators, Incl. Answering Service	2,310	2,060	-250	-10.82	0	59	59	10.59	11
43-2021	Telephone Operators	1,016	645	-371	-36.52	0	26	26	13.15	11
43-2099	Communications Equipment Operators, All Other	*	*	*	*	*	*	*	15.57	11
43-3000	Financial Clerks	51,741	55,394	3,653	7.06	365	1,201	1,566	n/a	n/a
43-3011	Bill and Account Collectors	6,160	7,545	1,385	22.48	139	116	255	12.85	11
43-3021	Billing and Posting Clerks and Machine Operators	11,199	11,369	170	1.52	17	190	207	12.60	10
43-3031	Bookkeeping, Accounting, and Auditing Clerks	23,283	24,023	740	3.18	74	436	510	13.14	10
43-3051	Payroll and Timekeeping Clerks	2,860	3,234	374	13.08	37	76	113	13.77	10
43-3061	Procurement Clerks	950	905	-45	-4.74	0	24	24	15.00	11
43-3071	Tellers	7,289	8,318	1,029	14.12	103	359	462	10.07	11
43-4000	Information and Record Clerks	71,924	80,308	8,384	11.66	838	1,518	2,356	n/a	n/a
43-4011	Brokerage Clerks	*	*	*	*	*	*	*	15.25	10
43-4021	Correspondence Clerks	202	198	-4	-1.98	0	6	6	13.65	11
43-4031	Court, Municipal, and License Clerks	*	*	*	*	*	*	*	13.49	11
43-4041	Credit Authorizers, Checkers, and Clerks	324	191	-133	-41.05	0	6	6	14.82	11
43-4051	Customer Service Representatives	25,124	31,092	5,968	23.75	597	374	971	12.84	10
43-4061	Eligibility Interviewers, Government Programs	345	331	-14	-4.06	0	9	9	17.28	10
43-4071	File Clerks	2,600	1,574	-1,026	-39.46	0	77	77	10.06	11
43-4081	Hotel, Motel, and Resort Desk Clerks	3,088	3,247	159	5.15	16	139	155	7.88	11
43-4111	Interviewers, Excl. Eligibility and Loan	3,769	4,711	942	24.99	94	97	191	11.37	11
43-4121	Library Assistants, Clerical	937	1,084	147	15.69	15	38	53	9.44	11
43-4131	Loan Interviewers and Clerks	3,044	2,927	-117	-3.84	0	42	42	12.65	11
43-4141	New Accounts Clerks	688	750	62	9.01	6	17	23	12.49	8
43-4151	Order Clerks	3,109	2,437	-672	-21.61	0	70	70	12.13	11
43-4161	H.R. Assistants, Excl. Payroll & Timekeeping	1,817	2,081	264	14.53	26	39	65	15.08	11
43-4171	Receptionists and Information Clerks	15,642	18,386	2,744	17.54	274	384	658	10.18	11
43-4181	Reservation, Transp. Ticket Agents & Travel Clerks	*	*	*	*	*	*	*	15.36	11
43-4199	Information and Record Clerks, All Other	5,244	4,787	-457	-8.71	0	82	82	15.01	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

		Employ		Cha	_		lob Openings		Average	Educ/
	cupational	2004	2014	2004-	_		e Annual 2004		Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
43-5000	Material Recording, Dispatching & Distributing Work.	58,741	56,834	-1,907	-3.25	0	1,730	1,730	n/a	n/a
43-5011	Cargo and Freight Agents	1,736	1,793	57	3.28	6	39	45	15.70	10
43-5021	Couriers and Messengers	2,649	2,605	-44	-1.66	0	61	61	10.06	11
43-5031	Police, Fire, and Ambulance Dispatchers	1,941	2,274	333	17.16	33	42	75	11.10	10
43-5032	Dispatchers, Except Police, Fire, and Ambulance	2,752	2,725	-27	-0.98	0	59	59	15.04	10
43-5041	Meter Readers, Utilities	1,015	574	-441	-43.45	0	32	32	12.76	11
43-5051	Postal Service Clerks	1,035	999	-36	-3.48	0	27	27	22.14	11
43-5052	Postal Service Mail Carriers	4,645	4,487	-158	-3.40	0	146	146	20.91	11
43-5053	Postal Service Mail Sorters, Processors	1,969	1,903	-66	-3.35	0	52	52	18.73	11
43-5061	Production, Planning, and Expediting Clerks	3,525	3,808	283	8.03	28	85	113	17.38	11
43-5071	Shipping, Receiving, and Traffic Clerks	11,011	12,086	1,075	9.76	108	226	334	12.90	11
43-5081	Stock Clerks and Order Fillers	24,962	22,150	-2,812	-11.27	0	924	924	10.77	11
43-5111	Weigher, Measurer, Checker & Sampler, Records	1,501	1,430	-71	-4.73	0	38	38	11.94	11
43-6000	Secretaries and Administrative Assistants	52,243	53,550	1,307	2.50	131	1,000	1,131	n/a	n/a
43-6011	Executive Secretaries & Admin. Assistants	22,462	24,177	1,715	7.64	172	430	602	15.40	10
43-6012	Legal Secretaries	2,434	2,901	467	19.19	47	47	94	15.14	7
43-6013	Medical Secretaries	3,691	3,924	233	6.31	23	71	94	11.80	7
43-6014	Secretaries, Excl. Legal, Medical, and Executive	23,656	22,548	-1,108	-4.68	0	453	453	11.34	10
43-9000	Other Office and Administrative Support Workers	44,145	44,277	132	0.30	13	1,003	1,016	n/a	n/a
43-9011	Computer Operators	1,097	719	-378	-34.46	0	23	23	16.30	10
43-9021	Data Entry Keyers	4,693	4,883	190	4.05	19	111	130	10.59	10
43-9022	Word Processors and Typists	1,246	1,114	-132	-10.59	0	28	28	12.14	10
43-9031	Desktop Publishers	309	362	53	17.15	5	7	12	13.94	7
43-9041	Insurance Claims and Policy Processing Clerks	1,411	1,502	91	6.45	9	23	32	15.51	10
43-9051	Mail Clerks & Mail Machine Operators, Excl. Postal	*	*	*	*	*	*	*	11.94	11
43-9061	Office Clerks, General	28,988	30,139	1,151	3.97	115	642	757	10.83	11
43-9071	Office Machine Operators, Excl. Computer	715	572	-143	-20.00	0	18	18	11.97	11
43-9081	Proofreaders and Copy Markers	227	226	-1	-0.44	0	5	5	11.64	11
43-9111	Statistical Assistants	*	*	*	*	*	*	*	21.11	10
43-9199	Office & Admin. Support Workers, All Other	2,400	2,647	247	10.29	25	57	82	13.97	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Farming, Fishing & Forestry Occupations

Kentucky Statewide

		Employ	ment*	Cha	nge		Job Openings		Average	Educ/
Oc	cupational	2004	2014	2004-	2014	Averag	je Annual 200	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
45-0000	Farming, Fishing, and Forestry Occupations	21,399	20,147	-1,252	-5.85	125	586	711	11.09	n/a
45-1000	Supervisors, Farming, Fishing & Forestry Workers	1,240	1,286	46	3.71	5	28	33	n/a	n/a
45-1011	Managers of Farming, Fishing & Forestry Workers	1,230	1,277	47	3.82	5	28	33	18.44	8
45-1012	Farm Labor Contractors	*	*	*	*	*	*	*	n/a	8
45-2000	Agricultural Workers	19,328	17,920	-1,408	-7.28	0	542	542	n/a	n/a
45-2011	Agricultural Inspectors	208	219	11	5.29	1	5	6	18.58	8
45-2021	Animal Breeders	300	388	88	29.33	9	5	14	11.37	11
45-2041	Graders and Sorters, Agricultural Products	418	364	-54	-12.92	0	11	11	10.34	8
45-2091	Agricultural Equipment Operators	*	*	*	*	*	*	*	13.26	10
45-2092	Farmworkers & Laborers, Crop, Nursery	13,095	11,713	-1,382	-10.55	0	371	371	9.94	11
45-2093	Farmworkers, Farm and Ranch Animals	3,851	3,838	-13	-0.34	0	109	109	9.57	11
45-2099	Agricultural Workers, All Other	*	*	*	*	*	*	*	10.91	11
45-4000	Forest, Conservation, and Logging Workers	829	939	110	13.27	11	16	27	n/a	n/a
45-4011	Forest and Conservation Workers	*	*	*	*	*	*	*	n/a	10
45-4021	Fallers	*	*	*	*	*	*	*	10.41	10
45-4022	Logging Equipment Operators	*	*	*	*	*	*	*	10.92	10
45-4023	Log Graders and Scalers	252	330	78	30.95	8	5	13	14.37	10
45-4029	Logging Workers, All Other	*	*	*	*	*	*	*	n/a	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Oc	cupational	Employ 2004	ment* 2014	Char 2004-2			ob Openings e Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
47-0000	Construction and Extraction Occupations	100,042	116,402	16,360	16.35	1,636	2,035	3,671	16.51	n/a
47-1000	Supervisors, Construction and Extraction Workers	11,289	13,366	2,077	18.40	208	192	400	n/a	n/a
47-1011	Managers of Constr. Trades & Extraction Workers	11,289	13,366	2,077	18.40	208	192	400	23.43	8
47-2000	Construction Trades Workers	71,125	82,558	11,433	16.07	1,143	1,357	2,500	n/a	n/a
47-2011	Boilermakers	369	379	10	2.71	1	13	14	22.84	9
47-2021	Brickmasons and Blockmasons	2,211	2,600	389	17.59	39	33	72	16.94	9
47-2022	Stonemasons	*	*	*	*	*	*	*	10.89	9
47-2031	Carpenters	12,766	15,558	2,792	21.87	279	208	487	16.22	9
47-2041	Carpet Installers	*	*	*	*	*	*	*	14.56	10
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	*	*	*	*	*	*	*	15.44	10
47-2043	Floor Sanders and Finishers	*	*	*	*	*	*	*	16.46	10
47-2044	Tile and Marble Setters	*	*	*	*	*	*	*	20.15	9
47-2051	Cement Masons and Concrete Finishers	2,056	2,426	370	18.00	37	41	78	14.29	10
47-2053	Terrazzo Workers and Finishers	*	*	*	*	*	*	*	n/a	9
47-2061	Construction Laborers	12,051	12,826	775	6.43	78	160	238	12.60	10
47-2071	Paving, Surfacing & Tamping Equip. Operators	1,274	1,551	277	21.74	28	18	46	14.20	10
47-2072	Pile-Driver Operators	*	*	*	*	*	*	*	n/a	10
47-2073	Operating Engineers & Other Constr. Equip. Ops.	10,615	12,880	2,265	21.34	227	273	500	16.49	10
47-2081	Drywall and Ceiling Tile Installers	1,693	2,016	323	19.08	32	37	69	19.46	10
47-2082	Tapers	339	393	54	15.93	5	7	12	17.91	10
47-2111	Electricians	8,907	9,676	769	8.63	77	176	253	20.33	9
47-2121	Glaziers	614	726	112	18.24	11	13	24	13.12	9
47-2131	Insulation Workers, Floor, Ceiling, and Wall	483	513	30	6.21	3	15	18	15.26	10
47-2132	Insulation Workers, Mechanical	132	143	11	8.33	1	4	5	15.82	10
47-2141	Painters, Construction and Maintenance	4,238	5,370	1,132	26.71	113	65	178	13.90	10
47-2142	Paperhangers	*	*	*	*	*	*	*	15.47	10
47-2151	Pipelayers	1,028	1,243	215	20.91	22	24	46	16.45	10
47-2152	Plumbers, Pipefitters, and Steamfitters	5,908	6,604	696	11.78	70	136	206	20.03	9
47-2161	Plasterers and Stucco Masons	*	*	*	*	*	*	*	19.90	9
47-2171	Reinforcing Iron and Rebar Workers	198	215	17	8.59	2	4	6	19.52	9
47-2181	Roofers	1,671	2,055	384	22.98	38	39	77	14.78	10
47-2211	Sheet Metal Workers	1,972	2,220	248	12.58	25	47	72	17.23	9
47-2221	Structural Iron and Steel Workers	803	926	123	15.32	12	16	28	19.06	9

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Construction & Extraction Occs. (cont'd)

Kentucky Statewide

000	oungtional	Employ 2004	/ment* 2014	Chai 2004-			lob Openings	1 2014	Average	Educ/ Training
Code	cupational Title	Estimated		Number	-		e Annual 2004 Separations	Total	Wage 2005	Req'd~
			•				•			
47-3000	Helpers, Construction Trades	5,774	6,315	541	9.37	54	240	294	n/a	n/a
47-3011	HelpersBrick, Block, Stone, Tile & Marble Setters	747	861	114	15.26	11	31	42	12.84	11
47-3012	HelpersCarpenters	1,388	1,619	231	16.64	23	58	81	9.28	11
47-3013	HelpersElectricians	1,277	1,234	-43	-3.37	0	53	53	11.93	11
47-3014	HelpersPainter, Paperhanger, Plasterer & Stucco	213	249	36	16.90	4	9	13	8.77	11
47-3015	HelpersPipelayer & fitter, Plumber & Steamfitter	1,651	1,819	168	10.18	17	69	86	11.20	11
47-3016	HelpersRoofers	248	289	41	16.53	4	10	14	9.99	11
47-3019	Helpers, Construction Trades, All Other	250	244	-6	-2.40	0	10	10	11.78	11
47-4000	Other Construction and Related Workers	6,292	7,714	1,422	22.60	142	104	246	n/a	n/a
47-4011	Construction and Building Inspectors	767	930	163	21.25	16	17	33	19.60	8
47-4021	Elevator Installers and Repairers	*	*	*	*	*	*	*	23.84	9
47-4031	Fence Erectors	*	*	*	*	*	*	*	11.57	10
47-4041	Hazardous Materials Removal Workers	146	183	37	25.34	4	4	8	14.19	10
47-4051	Highway Maintenance Workers	2,751	3,450	699	25.41	70	40	110	11.43	10
47-4061	Rail-Track Laying and Maint. Equip. Operators	*	*	*	*	*	*	*	17.52	10
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	*	*	*	*	*	*	*	11.76	10
47-4099	Construction and Related Workers, All Other	*	*	*	*	*	*	*	15.85	10
47-5000	Extraction Workers	5,562	6,449	887	15.95	89	143	232	n/a	n/a
47-5011	Derrick Operators, Oil and Gas	*	*	*	*	*	*	*	n/a	10
47-5012	Rotary Drill Operators, Oil and Gas	*	*	*	*	*	*	*	13.45	10
47-5013	Service Unit Operators, Oil, Gas, and Mining	161	191	30	18.63	3	5	8	12.16	10
47-5021	Earth Drillers, Excl. Oil and Gas	682	822	140	20.53	14	14	28	14.74	10
47-5031	Explosives Workers, Ordnance Handling & Blasters	446	470	24	5.38	2	17	19	16.38	10
47-5041	Continuous Mining Machine Operators	549	705	156	28.42	16	16	32	17.76	10
47-5042	Mine Cutting and Channeling Machine Operators	*	*	*	*	*	*	*	16.38	10
47-5049	Mining Machine Operators, All Other	*	*	*	*	*	*	*	n/a	10
47-5051	Rock Splitters, Quarry	*	*	*	*	*	*	*	n/a	10
47-5061	Roof Bolters, Mining	1,216	1,292	76	6.25	8	22	30	17.26	10
47-5071	Roustabouts, Oil and Gas	181	206	25	13.81	3	5	8	11.89	10
47-5081	HelpersExtraction Workers	1,426	1,677	251	17.60	25	40	65	13.90	11
47-5099	Extraction Workers, All Other	488	583	95	19.47	10	12	22	15.93	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Installation, Maintenance & Repair Occs.

Kentucky Statewide

00	cupational	Employ 2004	ment* 2014	Chai 2004-	_		ob Openings e Annual 200		Average	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	Wage 2005	Req'd~
49-0000	Installation, Maintenance, and Repair Occupations	87,176	96,262	9,086	10.42	909	1,982	2,891	17.14	n/a
49-1000	Supervisors of Installation, Maint. & Repair Workers	9,123	10,078	955	10.47	96	229	325	n/a	n/a
49-1011	Managers of Mechanics, Installers, and Repairers	9,123	10,078	955	10.47	96	229	325	23.23	8
49-2000	Electrical & Electronic Equip. Mechanics & Installers	7,543	8,186	643	8.52	64	143	207	n/a	n/a
49-2011	Computer, Automated Teller & Office Mach. Repair	2,096	2,207	111	5.30	11	26	37	16.18	7
49-2021	Radio Mechanics	*	*	*	*	*	*	*	16.68	7
49-2022	Telecommunications Equip. Installers & Repairers	1,720	1,918	198	11.51	20	36	56	20.74	9
49-2091	Avionics Technicians	147	147	0	0.00	0	4	4	21.82	7
49-2092	Electric Motor, Power Tool, and Related Repairers	390	429	39	10.00	4	9	13	16.37	7
49-2093	Elec. & Electron. Install. & Repair., Transp. Equip.	*	*	*	*	*	*	*	n/a	7
49-2094	Elec. & Electron. Repair- Comm. & Ind. Equip.	1,002	1,079	77	7.68	8	22	30	19.33	7
49-2095	Elec. & Electron. Repair- Pwrhouse, Subst. & Relay	*	*	*	*	*	*	*	25.45	7
49-2096	Electron. Equip. Install. & Repair., Motor Vehicles	*	*	*	*	*	*	*	16.35	7
49-2097	Electron. Home Entertain. Equip. Install & Repair	700	803	103	14.71	10	14	24	12.41	7
49-2098	Security and Fire Alarm Systems Installers	*	*	*	*	*	*	*	13.92	7
49-3000	Vehicle and Mobile Equip. Mechanics, Installers	24,352	27,629	3,277	13.46	328	631	959	n/a	n/a
49-3011	Aircraft Mechanics and Service Technicians	1,184	1,309	125	10.56	13	28	41	24.53	7
49-3021	Automotive Body and Related Repairers	2,115	2,215	100	4.73	10	43	53	16.28	9
49-3022	Automotive Glass Installers and Repairers	*	*	*	*	*	*	*	17.14	9
49-3023	Automotive Service Technicians and Mechanics	9,525	10,665	1,140	11.97	114	253	367	14.77	7
49-3031	Bus & Truck Mechanics & Diesel Eng. Specialists	4,398	5,169	771	17.53	77	113	190	15.75	7
49-3041	Farm Equipment Mechanics	334	363	29	8.68	3	7	10	12.53	7
49-3042	Mobile Heavy Equip. Mechanics, Excl. Engines	3,222	3,754	532	16.51	53	70	123	17.83	7
49-3043	Rail Car Repairers	*	*	*	*	*	*	*	16.66	9
49-3051	Motorboat Mechanics	*	*	*	*	*	*	*	13.48	9
49-3052	Motorcycle Mechanics	*	*	*	*	*	*	*	11.87	9
49-3053	Outdoor Power Equip. & Other Small Eng. Mech.	682	816	134	19.65	13	17	30	10.67	10
49-3091	Bicycle Repairers	*	*	*	*	*	*	*	12.08	10
49-3092	Recreational Vehicle Service Technicians	*	*	*	*	*	*	*	13.41	9
49-3093	Tire Repairers and Changers	1,592	1,671	79	4.96	8	68	76	10.22	11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Occ	cupational		Employment* 2004 2014		nge -2014		Job Openings Je Annual 200	Average Wage	Educ/ Training	
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
49-9000	Other Installation, Maintenance & Repair Occs.	46,158	50,369	4,211	9.12	421	980	1,401	n/a	n/a
49-9011	Mechanical Door Repairers	*	*	*	*	*	*	*	16.81	10
49-9012	Control & Valve Install. & Repair., Excl. Mech. Door	634	683	49	7.73	5	16	21	16.91	10
49-9021	Heating, A.C. & Refrigeration Mech. & Installers	3,788	4,447	659	17.40	66	50	116	15.88	9
49-9031	Home Appliance Repairers	340	292	-48	-14.12	0	8	8	15.74	9
49-9041	Industrial Machinery Mechanics	6,963	7,264	301	4.32	30	140	170	19.69	9
49-9042	Maintenance and Repair Workers, General	22,198	24,353	2,155	9.71	216	426	642	15.46	10
49-9043	Maintenance Workers, Machinery	1,090	1,215	125	11.47	13	25	38	15.92	11
49-9044	Millwrights	832	906	74	8.89	7	20	27	24.24	9
49-9045	Refractory Materials Repairers, Excl. Brickmasons	*	*	*	*	*	*	*	n/a	10
49-9051	Electrical Power-Line Installers and Repairers	2,360	2,270	-90	-3.81	0	75	75	21.73	9
49-9052	Telecommunications Line Installers and Repairers	1,991	2,341	350	17.58	35	54	89	15.64	9
49-9061	Camera and Photographic Equipment Repairers	*	*	*	*	*	*	*	n/a	10
49-9062	Medical Equipment Repairers	530	650	120	22.64	12	15	27	17.71	6
49-9063	Musical Instrument Repairers and Tuners	*	*	*	*	*	*	*	13.50	9
49-9064	Watch Repairers	*	*	*	*	*	*	*	15.23	9
49-9069	Precision Instrument & Equip. Repairers, Other	287	326	39	13.59	4	8	12	24.92	10
49-9091	Coin, Vending & Amusement Mach. Serv. & Repair.	514	432	-82	-15.95	0	13	13	12.50	10
49-9092	Commercial Divers	*	*	*	*	*	*	*	n/a	10
49-9093	Fabric Menders, Excl. Garment	*	*	*	*	*	*	*	n/a	10
49-9094	Locksmiths and Safe Repairers	*	*	*	*	*	*	*	12.12	10
49-9095	Manufactured Building and Mobile Home Installers	*	*	*	*	*	*	*	12.45	10
49-9096	Riggers	*	*	*	*	*	*	*	22.00	11
49-9097	Signal and Track Switch Repairers	*	*	*	*	*	*	*	n/a	10
49-9098	HelpersInstallation, Maint. & Repair Workers	1,786	2,043	257	14.39	26	60	86	10.62	11
49-9099	Installation, Maint. & Repair Workers, All Other	1,932	2,133	201	10.40	20	44	64	18.29	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Production Occupations

Kentucky Statewide

Oc	ccupational	Employ 2004	/ment* 2014	Cha 2004-	_		Job Openings ge Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
51-0000	Production Occupations	210,805	212,733	1,928	0.91	193	5,084	5,277	14.72	n/a
51-1000	Supervisors, Production Workers	13,583	14,488	905	6.66	91	285	376	n/a	n/a
51-1011	Managers of Production and Operating Workers	13,583	14,488	905	6.66	91	285	376	22.70	8
51-2000	Assemblers and Fabricators	52,006	55,349	3,343	6.43	334	1,338	1,672	n/a	n/a
51-2011	Aircraft Structure, Surface, Rig & Systems Assemb.	*	*	*	*	*	*	*	n/a	9
51-2021	Coil Winders, Tapers, and Finishers	373	279	-94	-25.20	0	9	9	14.20	11
51-2022	Electrical and Electronic Equipment Assemblers	1,632	1,310	-322	-19.73	0	39	39	13.92	11
51-2023	Electromechanical Equipment Assemblers	*	*	*	*	*	*	*	n/a	11
51-2031	Engine and Other Machine Assemblers	1,218	1,218	0	0.00	0	34	34	20.80	11
51-2041	Structural Metal Fabricators and Fitters	1,377	1,518	141	10.24	14	32	46	14.63	10
51-2091	Fiberglass Laminators and Fabricators	*	*	*	*	*	*	*	12.37	10
51-2092	Team Assemblers	35,031	38,587	3,556	10.15	356	906	1,262	14.39	10
51-2093	Timing Device Assemblers, Adjusters & Calibrators	*	*	*	*	*	*	*	n/a	10
51-2099	Assemblers and Fabricators, All Other	*	*	*	*	*	*	*	n/a	10
51-3000	Food Processing Workers	8,806	9,164	358	4.07	36	201	237	n/a	n/a
51-3011	Bakers	1,013	1,088	75	7.40	8	24	32	10.20	9
51-3021	Butchers and Meat Cutters	1,748	1,653	-95	-5.43	0	38	38	12.14	9
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	1,758	1,893	135	7.68	14	39	53	10.44	11
51-3023	Slaughterers and Meat Packers	*	*	*	*	*	*	*	9.32	10
51-3091	Food & Tobacco Roast., Baking, Drying Mach. Ops.	600	643	43	7.17	4	17	21	13.43	11
51-3092	Food Batchmakers	807	903	96	11.90	10	20	30	12.56	11
51-3093	Food Cooking Machine Operators and Tenders	521	494	-27	-5.18	0	12	12	11.67	11
51-4000	Metal Workers and Plastic Workers	45,545	46,717	1,172	2.57	117	1,124	1,241	n/a	n/a
51-4011	Computer-Controlled Machine Tool Operators	2,804	2,973	169	6.03	17	46	63	14.37	10
51-4012	Numerical Tool and Process Control Programmers	217	237	20	9.22	2	4	6	20.51	9
51-4021	Extruding & Drawing Mach. Setters, Ops. & Tenders	2,663	2,284	-379	-14.23	0	89	89	15.25	10
51-4022	Forging Machine Setters, Operators & Tenders	800	831	31	3.88	3	12	15	12.29	10
51-4023	Rolling Machine Setters, Operators, and Tenders	809	917	108	13.35	11	18	29	13.49	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Production Occupations (cont'd)

Kentucky Statewide

Occ	cupational	Employ 2004	/ment* 2014	Cha 2004-	_		Job Openings je Annual 2004	4-2014	Average Wage	Educ/ Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
51-4031	Cut, Punch & Press Mach. Setters, Ops. & Tenders	6,037	5,203	-834	-13.81	0	140	140	12.60	10
51-4032	Drill & Boring Mach. Tool Setters, Ops. & Tenders	1,167	1,223	56	4.80	6	34	40	13.52	10
51-4033	Grind, Lap, Polish & Buff Mach. Tool Setters, Ops.	1,345	1,283	-62	-4.61	0	26	26	13.26	10
51-4034	Lathe & Turning Mach. Tool Setters, Ops. & Tenders	1,269	1,244	-25	-1.97	0	24	24	13.65	10
51-4035	Milling & Planing Machine Setters, Ops. & Tenders	388	385	-3	-0.77	0	7	7	15.74	10
51-4041	Machinists	4,681	5,145	464	9.91	46	109	155	16.23	9
51-4051	Metal-Refining Furnace Operators and Tenders	553	551	-2	-0.36	0	12	12	16.09	10
51-4052	Pourers and Casters, Metal	216	205	-11	-5.09	0	5	5	16.14	10
51-4061	Model Makers, Metal and Plastic	*	*	*	*	*	*	*	19.67	10
51-4062	Patternmakers, Metal and Plastic	*	*	*	*	*	*	*	16.36	10
51-4071	Foundry Mold and Coremakers	*	*	*	*	*	*	*	14.47	10
51-4072	Molding, Coremaking & Casting Mach. Setters, Ops.	4,485	4,634	149	3.32	15	112	127	11.45	10
51-4081	Multiple Mach. Tool Setters, Ops. & Tenders	3,951	4,261	310	7.85	31	109	140	14.91	10
51-4111	Tool and Die Makers	2,248	2,387	139	6.18	14	51	65	20.97	9
51-4121	Welders, Cutters, Solderers, and Brazers	6,542	7,271	729	11.14	73	185	258	14.75	9
51-4122	Welding, Soldering & Brazing Mach. Setters, Ops.	2,543	2,848	305	11.99	31	72	103	14.00	10
51-4191	Heat Treating Equip. Setters, Ops. & Tenders	427	438	11	2.58	1	13	14	14.69	10
51-4192	Lay-Out Workers, Metal and Plastic	111	121	10	9.01	1	2	3	14.47	10
51-4193	Plating & Coating Mach. Setters, Ops. & Tenders	694	723	29	4.18	3	15	18	14.65	10
51-4194	Tool Grinders, Filers, and Sharpeners	221	244	23	10.41	2	7	9	12.92	10
51-4199	Metal Workers and Plastic Workers, All Other	1,239	1,170	-69	-5.57	0	29	29	18.51	10
51-5000	Printing Workers	6,602	6,276	-326	-4.94	0	160	160	n/a	n/a
51-5011	Bindery Workers	1,651	1,437	-214	-12.96	0	44	44	13.41	11
51-5012	Bookbinders	*	*	*	*	*	*	*	12.97	10
51-5021	Job Printers	375	386	11	2.93	1	9	10	16.71	9
51-5022	Prepress Technicians and Workers	1,236	1,082	-154	-12.46	0	29	29	15.60	7
51-5023	Printing Machine Operators	3,238	3,275	37	1.14	4	75	79	16.25	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Production Occupations (cont'd)

Kentucky Statewide Occupational Employment Outlook

0.5			Employment*		nge		Job Openings		Average	Educ/
Code	cupational Title	2004 Estimated	2014	2004- Number			ge Annual 2004 Separations	Total	Wage 2005	Training Req'd~
Code	Title	Estimateu	Projected	Number	Percent	Growth	Separations	TOLAI	2005	Req u~
51-6000	Textile, Apparel, and Furnishings Workers	16,483	11,788	-4,695	-28.48	0	282	282	n/a	n/a
51-6011	Laundry and Dry-Cleaning Workers	3,000	2,879	-121	-4.03	0	82	82	8.33	10
51-6021	Pressers, Textile, Garment, and Related Materials	1,004	857	-147	-14.64	0	16	16	8.57	11
51-6031	Sewing Machine Operators	8,586	4,394	-4,192	-48.82	0	106	106	9.31	10
51-6041	Shoe and Leather Workers and Repairers	*	*	*	*	*	*	*	11.15	9
51-6042	Shoe Machine Operators and Tenders	*	*	*	*	*	*	*	n/a	10
51-6051	Sewers, Hand	*	*	*	*	*	*	*	10.24	11
51-6052	Tailors, Dressmakers, and Custom Sewers	*	*	*	*	*	*	*	11.64	9
51-6061	Textile Bleaching & Dyeing Mach. Ops. & Tenders	*	*	*	*	*	*	*	n/a	10
51-6062	Textile Cutting Mach. Setters, Ops. & Tenders	262	183	-79	-30.15	0	6	6	11.32	10
51-6063	Textile Knitting & Weaving Mach. Setters, Ops.	271	102	-169	-62.36	0	3	3	10.44	9
51-6064	Textile Wind, Twist. & Drawing Out Mach. Setters	*	*	*	*	*	*	*	11.71	10
51-6091	Extruding & Forming Mach. Setters, Ops. & Tenders	*	*	*	*	*	*	*	14.20	10
51-6092	Fabric and Apparel Patternmakers	*	*	*	*	*	*	*	16.41	9
51-6093	Upholsterers	689	629	-60	-8.71	0	18	18	12.85	9
51-6099	Textile, Apparel & Furnishings Workers, All Other	*	*	*	*	*	*	*	10.01	11
51-7000	Woodworkers	6,474	6,876	402	6.21	40	169	209	n/a	n/a
51-7011	Cabinetmakers and Bench Carpenters	1,611	1,944	333	20.67	33	40	73	11.51	9
51-7021	Furniture Finishers	394	392	-2	-0.51	0	8	8	12.69	9
51-7031	Model Makers, Wood	*	*	*	*	*	*	*	n/a	9
51-7032	Patternmakers, Wood	*	*	*	*	*	*	*	11.96	9
51-7041	Sawing Machine Setters, Ops. & Tenders, Wood	1,385	1,398	13	0.94	1	39	40	10.40	10
51-7042	Woodworking Machine Setters, Ops. & Tenders	2,754	2,820	66	2.40	7	72	79	10.87	10
51-7099	Woodworkers, All Other	242	238	-4	-1.65	0	7	7	10.85	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Production Occupations (cont'd)

Kentucky Statewide Occupational Employment Outlook

Employment* Change **Job Openings** Average Educ/ Average Annual 2004-2014 Wage **Occupational** 2004 2014 2004-2014 Training **Estimated Projected** Number Percent **Growth Separations** Code Title Total 2005 Reg'd~ 51-8000 5,749 -0.31 174 **Plant and System Operators** 5,767 -18 0 174 n/a n/a 51-8012 209 203 -6 -2.87 0 6 6 9 Power Distributors and Dispatchers 31.60 0 15 9 51-8013 **Power Plant Operators** 548 432 -116 -21.17 15 24.95 51-8021 577 15 9 Stationary Engineers and Boiler Operators 619 42 7.28 4 11 18.14 51-8031 Water & Liquid Waste Treatment Plant & Sys. Ops. 1,755 2,080 325 18.52 33 60 93 15.21 9 53 53 9 51-8091 **Chemical Plant and System Operators** 1,698 1,480 -218 -12.840 22.79 7 9 51-8092 **Gas Plant Operators** 215 209 -6 -2.79 0 25.82 9 51-8093 Petroleum Pump System Ops., Refinery Ops. 20.21 9 51-8099 Plant and System Operators, All Other 187 177 -10 -5.35 0 6 18.95 1,430 51-9000 Other Production Occupations 55,539 787 1.42 79 1,351 56,326 n/a n/a 51-9011 Chemical Equipment Operators and Tenders 819 765 -54 -6.590 26 26 24.82 10 20 51-9012 Separate, Filter, Clarify, Precipite & Still Mach. Ops. 544 573 29 5.33 3 17 16.55 10 51-9021 10 Crush, Grind & Polish Mach. Setters, Ops. & Tenders 17.29 51-9022 Grinding and Polishing Workers, Hand 400 399 -1 -0.25 0 10 10 13.00 10 51-9023 Mixing & Blending Mach. Setters, Ops. & Tenders 2,104 2,114 10 0.48 1 55 56 15.15 10 5 51-9031 Cutters and Trimmers, Hand 198 210 12 6.06 1 4 11.26 11 51-9032 -81 0 31 10 Cutting & Slicing Mach. Setters, Ops. & Tenders 1,503 1,422 -5.39 31 13.56 51-9041 59 66 Extrude, Form, Press & Compact Mach. Ops. 2,242 2,307 65 2.90 14.34 10 51-9051 21 22 10 Furnace, Kiln, Oven, Drier & Kettle Ops. & Tenders 863 873 10 1.16 15.07 51-9061 Inspectors, Testers, Sorters, Samplers & Weighers 10,265 10,310 45 0.44 5 234 239 14.95 10 51-9071 Jewelers and Precious Stone and Metal Workers 273 -4.76 0 5 7 260 -13 15.74 51-9081 **Dental Laboratory Technicians** 450 482 32 7.11 3 10 13 14.59 9 9 51-9082 Medical Appliance Technicians 17.98 51-9083 Ophthalmic Laboratory Technicians 294 315 21 7.14 2 6 11.17 10 51-9111 Packaging & Filling Machine Ops. & Tenders 8,338 8,104 -234 -2.810 166 166 13.05 11 74 51-9121 Coating, Painting & Spraying Mach. Setters, Ops. 2,537 2,614 77 3.04 8 66 13.69 10 14 51 51-9122 Painters, Transportation Equipment 1,430 138 9.65 37 22.61 9 1,568 51-9123 Painting, Coating, and Decorating Workers 426 490 64 15.02 6 11 17 10.62 11 -29 51-9131 Photographic Process Workers 172 143 -16.86 0 4 11.86 10 51-9132 Photographic Processing Machine Operators 716 518 -198 -27.65 18 18 9.05 11

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Production Occupations (cont'd)

		Employ	/ment*	Cha	nge		Job Openings		Average	Educ/
Осс	upational	2004	2014	2004-	2014	Averag	je Annual 2004	4-2014	Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2005	Req'd~
51-9191	Cementing & Gluing Machine Ops. & Tenders	459	455	-4	-0.87	0	13	13	11.33	10
51-9192	Clean, Wash & Metal Pickling Equip. Ops. & Tend.	591	638	47	7.95	5	17	22	13.17	10
51-9193	Cooling & Freezing Equipment Ops. & Tenders	*	*	*	*	*	*	*	15.40	10
51-9194	Etchers and Engravers	*	*	*	*	*	*	*	11.15	9
51-9195	Molders, Shapers & Casters, Excl. Metal & Plastic	659	638	-21	-3.19	0	16	16	11.50	10
51-9196	Paper Goods Machine Setters, Ops. & Tenders	2,475	2,638	163	6.59	16	53	69	16.46	10
51-9197	Tire Builders	*	*	*	*	*	*	*	n/a	10
51-9198	HelpersProduction Workers	10,533	11,308	775	7.36	78	295	373	11.32	11
51-9199	Production Workers, All Other	5,588	5,372	-216	-3.87	0	133	133	14.38	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Transportation & Material Moving Occs.

Kentucky Statewide

00	cupational		Employment* 2004 2014		ige		ob Openings e Annual 2004	1 2014	Average	Educ/ Training
Code	Title	Estimated		2004-2 Number			Separations	Total	Wage 2005	Req'd~
	Transportation and Material Moving Occupations	160,613	182,045	21,432	13.34	2,143	3,581	5,724	13.62	n/a
53-1000	Supervisors, Transp. & Material Moving Workers	6,912	8,183	1,271	18.39	127	163	290	n/a	n/a
53-1011	Aircraft Cargo Handling Supervisors	*	*	*	*	*	*	*	n/a	8
53-1021	Mgrs. of Helpers, Laborers & Material Movers, Hand	3,096	3,589	493	15.92	49	73	122	17.72	8
53-1031	Mgrs. of Transp., Material-Moving & Vehicle Ops.	3,490	4,154	664	19.03	66	82	148	21.61	8
53-2000	Air Transportation Workers	2,469	2,864	395	16.00	40	66	106	n/a	n/a
53-2011	Airline Pilots, Copilots, and Flight Engineers	*	*	*	*	*	*	*	n/a	5
53-2012	Commercial Pilots	170	179	9	5.29	1	5	6	n/a	7
53-2021	Air Traffic Controllers	254	266	12	4.72	1	7	8	48.88	9
53-2022	Airfield Operations Specialists	*	*	*	*	*	*	*	n/a	9
53-3000	Motor Vehicle Operators	65,269	77,927	12,658	19.39	1,266	993	2,259	n/a	n/a
53-3011	Ambulance Drivers & Attend., Excl. EMTs	*	*	*	*	*	*	*	9.58	10
53-3021	Bus Drivers, Transit and Intercity	2,274	2,688	414	18.21	41	50	91	15.20	10
53-3022	Bus Drivers, School	6,948	8,150	1,202	17.30	120	151	271	12.27	11
53-3031	Driver/Sales Workers	7,008	7,875	867	12.37	87	114	201	11.27	11
53-3032	Truck Drivers, Heavy and Tractor-Trailer	31,377	37,511	6,134	19.55	613	512	1,125	15.89	10
53-3033	Truck Drivers, Light or Delivery Services	14,653	17,855	3,202	21.85	320	135	455	12.58	11
53-3041	Taxi Drivers and Chauffeurs	2,263	2,970	707	31.24	71	21	92	8.93	11
53-3099	Motor Vehicle Operators, All Other	677	788	111	16.40	11	10	21	14.65	11
53-4000	Rail Transportation Workers	957	755	-202	-21.11	0	25	25	n/a	n/a
53-4011	Locomotive Engineers	*	*	*	*	*	*	*	21.38	10
53-4012	Locomotive Firers	*	*	*	*	*	*	*	n/a	10
53-4013	Rail Yard Engineers, Dinkey Ops. & Hostlers	*	*	*	*	*	*	*	19.05	10
53-4021	Railroad Brake, Signal, and Switch Operators	*	*	*	*	*	*	*	n/a	10
53-4031	Railroad Conductors and Yardmasters	*	*	*	*	*	*	*	32.75	10
53-4099	Rail Transportation Workers, All Other	*	*	*	*	*	*	*	20.13	10
53-5000	Water Transportation Workers	1,552	1,642	90	5.80	9	52	61	n/a	n/a
53-5011	Sailors and Marine Oilers	909	955	46	5.06	5	32	37	15.53	11
53-5021	Captains, Mates, and Pilots of Water Vessels	552	582	30	5.43	3	16	19	23.94	8
53-5022	Motorboat Operators	*	*	*	*	*	*	*	n/a	10
53-5031	Ship Engineers	*	*	*	*	*	*	*	27.02	7

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Occ	cupational		Employment* 2004 2014		nge -2014		Job Openings Je Annual 200		Average Wage	Educ/ Training
Code	Title	Estimated		Number			Separations	Total	2005	Req'd~
53-6000	Other Transportation Workers	3,481	3,610	129	3.71	13	120	133	n/a	n/a
53-6011	Bridge and Lock Tenders	*	*	*	*	*	*	*	21.58	11
53-6021	Parking Lot Attendants	622	528	-94	-15.11	0	18	18	8.85	11
53-6031	Service Station Attendants	1,107	1,152	45	4.07	5	50	55	9.00	11
53-6041	Traffic Technicians	*	*	*	*	*	*	*	n/a	11
53-6051	Transportation Inspectors	191	194	3	1.57	0	5	5	29.05	8
53-6099	Transportation Workers, All Other	*	*	*	*	*	*	*	16.64	11
53-7000	Material Moving Workers	79,973	87,064	7,091	8.87	709	2,164	2,873	n/a	n/a
53-7011	Conveyor Operators and Tenders	825	969	144	17.45	14	24	38	14.36	11
53-7021	Crane and Tower Operators	991	1,178	187	18.87	19	22	41	16.34	9
53-7031	Dredge Operators	*	*	*	*	*	*	*	n/a	10
53-7032	Excavating & Loading Machine & Dragline Ops.	1,521	1,804	283	18.61	28	42	70	15.72	10
53-7033	Loading Machine Operators, Underground Mining	352	443	91	25.85	9	10	19	16.28	10
53-7041	Hoist and Winch Operators	*	*	*	*	*	*	*	n/a	10
53-7051	Industrial Truck and Tractor Operators	14,352	16,179	1,827	12.73	183	272	455	13.92	11
53-7061	Cleaners of Vehicles and Equipment	4,422	4,534	112	2.53	11	154	165	9.42	11
53-7062	Laborers & Freight, Stock & Material Movers, Hand	35,168	39,031	3,863	10.98	386	1,149	1,535	10.90	11
53-7063	Machine Feeders and Offbearers	5,614	5,062	-552	-9.83	0	153	153	11.30	11
53-7064	Packers and Packagers, Hand	13,200	14,353	1,153	8.73	115	247	362	9.12	11
53-7071	Gas Compressor & Gas Pumping Station Ops.	*	*	*	*	*	*	*	n/a	10
53-7072	Pump Operators, Except Wellhead Pumpers	*	*	*	*	*	*	*	16.92	10
53-7073	Wellhead Pumpers	193	179	-14	-7.25	0	5	5	12.99	10
53-7081	Refuse and Recyclable Material Collectors	1,407	1,571	164	11.66	16	36	52	10.10	11
53-7111	Shuttle Car Operators	686	568	-118	-17.20	0	17	17	17.13	11
53-7121	Tank Car, Truck, and Ship Loaders	317	301	-16	-5.05	0	9	9	15.01	10
53-7199	Material Moving Workers, All Other	*	*	*	*	*	*	*	17.06	10

^{*} Employment under 100 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 74
Source: Kentucky Education Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

Occupational Title	Page	soc	Occupational Title	Page	soc
A			Atmospheric & Space Scientists	33	19-2021
			Atmospheric, Earth, Marine, & Space Sciences Teachers, Postsecondary	37	25-1051
Accountants 9 Auditors	20	12 2011	Audio & Video Equipment Technicians	41	27-4011
Accountants & Auditors	29	13-2011	Audiologists	42	29-1121
Actors	40	27-2011	Audio-Visual Collections Specialists	39	25-9011
Administration I and Indiana Administrators & Handing Officers	30	15-2011	Automotive Body & Related Repairers	56	49-3021
Administrative Law Judges, Adjudicators, & Hearing Officers	36	23-1021	Automotive Glass Installers & Repairers	56	49-3022
Administrative Services Managers	27	11-3011	Automotive Service Technicians & Mechanics	56	49-3023
Adult Literacy, Remedial Education, & GED Teachers & Instructors	38	25-3011	Avionics Technicians	56	49-2091
Advertising & Promotions Managers	27	11-2011			
Advertising Sales Agents	50	41-3011	В		
Aerospace Engineering & Operations Technicians	32	17-3021			
Aerospace Engineers	31	17-2011			
Agents & Business Managers of Artists, Performers, & Athletes	29	13-1011	Baggage Porters & Bellhops	48	39-6011
Agricultural & Food Science Technicians	34	19-4011	Bailiffs	45	33-3011
Agricultural Engineers	31	17-2021	Bakers	58	51-3011
Agricultural Equipment Operators	53	45-2091	Barbers	48	39-5011
Agricultural Inspectors	53	45-2011	Bartenders	46	35-3011
Agricultural Sciences Teachers, Postsecondary	37	25-1041	Bicycle Repairers	56	49-3091
Agricultural Workers, All Other	53	45-2099	Bill & Account Collectors	51	43-3011
Air Traffic Controllers	63	53-2021	Billing & Posting Clerks & Machine Operators	51	43-3021
Air Transportation Workers	63	53-2000	Bindery Workers	59	51-5011
Aircraft Cargo Handling Supervisors	63	53-1011	Biochemists & Biophysicists	33	19-1021
Aircraft Mechanics & Service Technicians	56	49-3011	Biological Science Teachers, Postsecondary	37	25-1042
Aircraft Structure, Surfaces, Rigging, & Systems Assemblers	58	51-2011	Biological Scientists, All Other	33	19-1029
Airfield Operations Specialists	63	53-2022	Biological Technicians	34	19-4021
Airline Pilots, Copilots, & Flight Engineers	63	53-2011	Biomedical Engineers	31	17-2031
Ambulance Drivers & Attendants, Except Emergency Medical Technicians	63	53-3011	Boilermakers	54	47-2011
Amusement & Recreation Attendants	48	39-3091	Bookbinders	59	51-5012
Anesthesiologists	42	29-1061	Bookkeeping, Accounting, & Auditing Clerks	51	43-3031
Animal Breeders	53	45-2021	Brickmasons & Blockmasons	54	47-2021
Animal Control Workers	45	33-9011	Bridge & Lock Tenders	64	53-6011
Animal Scientists	33	19-1011	Broadcast News Analysts	41	27-3021
Animal Trainers	48	39-2011	Broadcast Technicians	41	27-3021
	34	19-3091		51	43-4012
Anthropologists & Archeologists Anthropology & Archeology Tecephore, Postsesendany	37	25-1061	Brokerage Clerks	29	13-2031
Anthropology & Archeology Teachers, Postsecondary Appraisers & Assessors of Real Estate	29	13-2021	Budget Analysts	47	37-2019
11	36	23-1022	Building Cleaning Workers, All Other		
Arbitrators, Mediators, & Conciliators			Bus & Truck Mechanics & Diesel Engine Specialists	56	49-3031
Architects, Except Landscape & Naval	31	17-1011	Bus Drivers, School	63	53-3022
Architectural & Civil Drafters	32	17-3011	Bus Drivers, Transit & Intercity	63	53-3021
Architecture Teachers, Postsecondary	37	25-1031	Business Operations Specialists, All Other	29	13-1199
Archivists	38	25-4011	Business Teachers, Postsecondary	37	25-1011
Area, Ethnic, & Cultural Studies Teachers, Postsecondary	37	25-1062	Butchers & Meat Cutters	58	51-3021
Art Directors	40	27-1011			
Art, Drama, & Music Teachers, Postsecondary	37	25-1121			
Artists & Related Workers, All Other	40	27-1019			
Assemblers & Fabricators, All Other	58	51-2099			
Astronomers	33	19-2011			
Athletes & Sports Competitors	40	27-2021			
Athletic Trainers	43	29-9091			

Occupational Title	Page	soc	Occupational Title	Page	soc
С			Computer Hardware Engineers	31	17-2061
C			Computer Operators	52	43-9011
			Computer Programmers	30	15-1021
Cabinetmakers & Bench Carpenters	60	51-7011	Computer Science Teachers, Postsecondary	37	25-1021
Camera & Photographic Equipment Repairers	57	49-9061	Computer Software Engineers, Applications	30	15-1031
Camera Operators, Television, Video, & Motion Picture	41	27-4031	Computer Software Engineers, Systems Software	30	15-1032
Captains, Mates, & Pilots of Water Vessels	63	53-5021	Computer Specialists, All Other	30	15-1099
Cardiovascular Technologists & Technicians	43	29-2031	Computer Support Specialists	30	15-1041
Cargo & Freight Agents	52	43-5011	Computer Systems Analysts	30	15-1051
Carpenters	54	47-2031	Computer, Automated Teller, & Office Machine Repairers	56	49-2011
Carpet Installers	54	47-2041	Computer-Controlled Machine Tool Operators, Metal & Plastic	58	51-4011
Cartographers & Photogrammetrists	31	17-1021	Concierges	48	39-6012
Cashiers	50	41-2011	Conservation Scientists	33	19-1031
Cement Masons & Concrete Finishers	54	47-2051	Construction & Building Inspectors	55	47-4011
Cementing & Gluing Machine Operators & Tenders	62	51-9191	Construction & Related Workers, All Other	55	47-4099
Chefs & Head Cooks	46	35-1011	Construction Laborers	54	47-2061
Chemical Engineers	31	17-2041	Construction Managers	27	11-9021
Chemical Equipment Operators & Tenders	61	51-9011	Continuous Mining Machine Operators	55	47-5041
Chemical Plant & System Operators	61	51-8091	Control & Valve Installers & Repairers, Except Mechanical Door	57	49-9012
Chemical Technicians	34	19-4031	Conveyor Operators & Tenders	64	53-7011
Chemistry Teachers, Postsecondary	37	25-1052	Cooks, All Other	46	35-2019
Chemists	33	19-2031	Cooks, Fast Food	46	35-2011
Chief Executives	27	11-1011	Cooks, Institution & Cafeteria	46	35-2012
Child Care Workers	49	39-9011	Cooks, Private Household	46	35-2013
Child, Family, & School Social Workers	35	21-1021	Cooks, Restaurant	46	35-2014
Chiropractors	42	29-1011	Cooks, Short Order	46	35-2015
Choreographers	40	27-2032	Cooling & Freezing Equipment Operators & Tenders	62	51-9193
Civil Engineering Technicians	32	17-3022	Correctional Officers & Jailers	45	33-3012
Civil Engineers	31	17-2051	Correspondence Clerks	51	43-4021
Claims Adjusters, Examiners, & Investigators	29	13-1031	Cost Estimators	29	13-1051
Cleaners of Vehicles & Equipment	64	53-7061	Costume Attendants	48	39-3092
Cleaning, Washing, & Metal Pickling Equipment Operators & Tenders	62	51-9192	Counselors, All Other	35	21-1019
Clergy	35	21-2011	Counter & Rental Clerks	50	41-2021
Clinical, Counseling, & School Psychologists	34	19-3031	Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	46	35-3022
Coaches & Scouts	40	27-2022	Couriers & Messengers	52	43-5021
Coating, Painting, & Spraying Machine Setters, Operators, & Tenders	61	51-9121	Court Reporters	36	23-2091
Coil Winders, Tapers, & Finishers	58	51-2021	Court, Municipal, & License Clerks	51	43-4031
Coin, Vending, & Amusement Machine Servicers & Repairers	57	49-9091	Craft Artists	40	27-1012
Combined Food Preparation & Serving Workers, Including Fast Food	46	35-3021	Crane & Tower Operators	64	53-7021
Commercial & Industrial Designers	40	27-1021	Credit Analysts	29	13-2041
Commercial Divers	57	49-9092	Credit Authorizers, Checkers, & Clerks	51	43-4041
Commercial Pilots	63	53-2012	Criminal Justice & Law Enforcement Teachers, Postsecondary	37	25-1111
Communications Equipment Operators, All Other	51	43-2099	Crossing Guards	45	33-9091
Communications Teachers, Postsecondary	38	25-1122	Crushing, Grinding, & Polishing Machine Setters, Operators, & Tenders	61	51-9021
Community & Social Service Specialists, All Other	35	21-1099	Curators	38	25-4012
Compensation & Benefits Managers	27	11-3041	Customer Service Representatives	50 51	43-4051
Compensation, Benefits, & Job Analysis Specialists	29	13-1072	Cutters & Trimmers, Hand	61	51-9031
Compliance Officers, Except Agriculture, Construction, Health & Safety, & Transportation	29	13-1072	Cutting & Slicing Machine Setters, Operators, & Tenders	61	51-9031
Computer & Information Scientists, Research	30	15-1041	Cutting, Punching, & Press Machine Setters, Operators, & Tenders, Metal & Plastic	59	51-9032
Computer & Information Systems Managers	27	11-3021	Saturny, Farrorning, a Freedo madernino obttoro, Operatoro, a Terruero, metar a Frastito	33	J1 -7001
Computer a mioritation systems managers	21	11-3021			

Occupational Title	Page	soc	Occupational Title	Page	soc
		•	Electrical Engineers	31	17-2071
D			Electrical Power-Line Installers & Repairers	57	49-9051
			Electricians	54	47-2111
Dancers	40	27-2031	Electromechanical Equipment Assemblers	58	51-2023
Data Entry Keyers	52	43-9021	Electro-Mechanical Technicians	32	17-3024
Database Administrators	30	15-1061	Electronic Equipment Installers & Repairers, Motor Vehicles	56	49-2096
Demonstrators & Product Promoters	50	41-9011	Electronic Home Entertainment Equipment Installers & Repairers	56	49-2097
Dental Assistants	44	31-9091	Electronics Engineers, Except Computer	31	17-2072
Dental Hygienists	43	29-2021	Elementary School Teachers, Except Special Education	38	25-2021
Dental Laboratory Technicians	61	51-9081	Elevator Installers & Repairers	55	47-4021
Dentists, General	42	29-1021	Eligibility Interviewers, Government Programs	51	43-4061
Derrick Operators, Oil & Gas	55	47-5011	Embalmers	48	39-4011
Designers, All Other	40	27-1029	Emergency Management Specialists	29	13-1061
Desktop Publishers	52	43-9031	Emergency Medical Technicians & Paramedics	43	29-2041
Detectives & Criminal Investigators	45	33-3021	Employment, Recruitment, & Placement Specialists	29	13-1071
Diagnostic Medical Sonographers	43	29-2032	Engine & Other Machine Assemblers	58	51-2031
Dietetic Technicians	43	29-2051	Engineering Managers	27	11-9041
Dietitians & Nutritionists	42	29-1031	Engineering Teachers, Postsecondary	37	25-1032
Dining Room & Cafeteria Attendants & Bartender Helpers	46	35-9011	Engineering Technicians, Except Drafters, All Other	32	17-3029
Directors, Religious Activities & Education	35	21-2021	Engineers, All Other	31	17-2199
Dishwashers	46	35-9021	English Language & Literature Teachers, Postsecondary	38	25-1123
Dispatchers, Except Police, Fire, & Ambulance	52	43-5032	Entertainers & Performers, Sports & Related Workers, All Other	40	27-2099
Door-To-Door Sales Workers, News & Street Vendors, & Related Workers	50	41-9091	Entertainment Attendants & Related Workers, All Other	48	39-3099
Drafters, All Other	32	17-3019	Environmental Engineering Technicians	32	17-3025
Dredge Operators	64	53-7031	Environmental Engineers	31	17-2081
Drilling & Boring Machine Tool Setters, Operators, & Tenders, Metal & Plastic	59	51-4032	Environmental Science & Protection Technicians, Including Health	34	19-4091
Driver/Sales Workers	63	53-3031	Environmental Scientists & Specialists, Including Health	33	19-2041
Drywall & Ceiling Tile Installers	54	47-2081	Epidemiologists	33	19-1041
			Etchers & Engravers	62	51-9194
E			Excavating & Loading Machine & Dragline Operators	64	53-7032
-			Executive Secretaries & Administrative Assistants	52	43-6011
			Explosives Workers, Ordnance Handling Experts, & Blasters	55	47-5031
Earth Drillers, Except Oil & Gas	55	47-5021	Extraction Workers, All Other	55	47-5099
Economics Teachers, Postsecondary	37	25-1063	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	58	51-4021
Economists	34	19-3011	Extruding & Forming Machine Setters, Operators, & Tenders, Synthetic & Glass Fibers	60	51-6091
Editors	41	27-3041	Extruding, Forming, Pressing, & Compacting Machine Setters, Operators, & Tenders	61	51-9041
Education Administrators, All Other	27	11-9039			
Education Administrators, Elementary & Secondary School	27	11-9032	F		
Education Administrators, Postsecondary	27	11-9033	· ·		
Education Administrators, Preschool & Child Care Center/Program	27	11-9031			
Education Teachers, Postsecondary	37	25-1081	Fabric & Apparel Patternmakers	60	51-6092
Education, Training, & Library Workers, All Other	39	25-9099	Fabric Menders, Except Garment	57	49-9093
Educational, Vocational, & School Counselors	35	21-1012	Fallers	53	45-4021
Electric Motor, Power Tool, & Related Repairers	56	49-2092	Family & General Practitioners	42	29-1062
Electrical & Electronic Engineering Technicians	32	17-3023	Farm & Home Management Advisors	39	25-9021
Electrical & Electronic Equipment Assemblers	58	51-2022	Farm Equipment Mechanics	56	49-3041
Electrical & Electronics Drafters	32	17-3012	Farm Labor Contractors	53	45-1012
Electrical & Electronics Installers & Repairers, Transportation Equipment	56	49-2093	Farm, Ranch, & Other Agricultural Managers	27	11-9011
Electrical & Electronics Repairers, Commercial & Industrial Equipment	56	49-2094	Farmers & Ranchers	27	11-9012
Electrical & Electronics Repairers, Powerhouse, Substation, & Relay	56	49-2095	Farmworkers & Laborers, Crop, Nursery, & Greenhouse	53	45-2092

Occupational Title	Page	soc	Occupational Title	Page	soc
Farmworkers, Farm & Ranch Animals	53	45-2093	General & Operations Managers	27	11-1021
Fashion Designers	40	27-1022	Geographers	34	19-3092
Fence Erectors	55	47-4031	Geography Teachers, Postsecondary	37	25-1064
Fiberglass Laminators & Fabricators	58	51-2091	Geological & Petroleum Technicians	34	19-4041
File Clerks	51	43-4071	Geoscientists, Except Hydrologists & Geographers	33	19-2042
Film & Video Editors	41	27-4032	Glaziers	54	47-2121
Financial Analysts	29	13-2051	Graders & Sorters, Agricultural Products	53	45-2041
Financial Examiners	29	13-2061	Graduate Teaching Assistants	38	25-1191
Financial Managers	27	11-3031	Graphic Designers	40	27-1024
Financial Specialists, All Other	29	13-2099	Grinding & Polishing Workers, Hand	61	51-9022
Fine Artists, Including Painters, Sculptors, & Illustrators	40	27-1013	Grinding, Lapping, Polishing, & Buffing Machine Tool Setters, Operators, & Tenders, Metal & Plastic	59	51-4033
Fire Fighters	45	33-2011	Grounds Maintenance Workers, All Other	47	37-3019
Fire Inspectors & Investigators	45	33-2021			
Fish & Game Wardens	45	33-3031	Н		
Fitness Trainers & Aerobics Instructors	49	39-9031	П		
Flight Attendants	48	39-6031			
Floor Layers, Except Carpet, Wood, & Hard Tiles	54	47-2042	Hairdressers, Hairstylists, & Cosmetologists	48	39-5012
Floor Sanders & Finishers	54	47-2043	Hazardous Materials Removal Workers	55	47-4041
Floral Designers	40	27-1023	Health & Safety Engineers, Except Mining Safety Engineers & Inspectors	31	17-2111
Food & Tobacco Roasting, Baking, & Drying Machine Operators & Tenders	58	51-3091	Health Diagnosing & Treating Practitioners, All Other	42	29-1199
Food Batchmakers	58	51-3092	Health Educators	35	21-1091
Food Cooking Machine Operators & Tenders	58	51-3093	Health Specialties Teachers, Postsecondary	37	25-1071
Food Preparation & Serving Related Workers, All Other	46	35-9099	Health Technologists & Technicians, All Other	43	29-2099
Food Preparation Workers	46	35-2021	Healthcare Practitioners & Technical Workers, All Other	43	29-9099
Food Scientists & Technologists	33	19-1012	Healthcare Support Workers, All Other	44	31-9099
Food Servers, Nonrestaurant	46	35-3041	Heat Treating Equipment Setters, Operators, & Tenders, Metal & Plastic	59	51-4191
Food Service Managers	27	11-9051	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	57	49-9021
Foreign Language & Literature Teachers, Postsecondary	38	25-1124	Helpers, Construction Trades, All Other	55	47-3019
Forensic Science Technicians	34	19-4092	HelpersBrickmasons, Blockmasons, Stonemasons, & Tile & Marble Setters	55	47-3011
Forest & Conservation Technicians	34	19-4093	HelpersCarpenters	55	47-3012
Forest & Conservation Workers	53	45-4011	HelpersElectricians	55	47-3013
Forest Fire Inspectors & Prevention Specialists	45	33-2022	HelpersExtraction Workers	55	47-5081
Foresters	33	19-1032	HelpersInstallation, Maintenance, & Repair Workers	57	49-9098
Forestry & Conservation Science Teachers, Postsecondary	37	25-1043	HelpersPainters, Paperhangers, Plasterers, & Stucco Masons	55	47-3014
Forging Machine Setters, Operators, & Tenders, Metal & Plastic	58	51-4022	HelpersPipelayers, Plumbers, Pipefitters, & Steamfitters	55	47-3015
Foundry Mold & Coremakers	59	51-4071	HelpersProduction Workers	62	51-9198
Funeral Attendants	48	39-4021	HelpersRoofers	55	47-3016
Funeral Directors	28	11-9061	Highway Maintenance Workers	55	47-4051
Furnace, Kiln, Oven, Drier, & Kettle Operators & Tenders	61	51-9051	Historians	34	19-3093
Furniture Finishers	60	51-7021	History Teachers, Postsecondary	38	25-1125
			Hoist & Winch Operators	64	53-7041
G			Home Appliance Repairers	57	49-9031
			Home Economics Teachers, Postsecondary	38	25-1192
			Home Health Aides	44	31-1011
Gaming & Sports Book Writers & Runners	48	39-3012	Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	46	35-9031
Gaming Change Persons & Booth Cashiers	50	41-2012	Hotel, Motel, & Resort Desk Clerks	51	43-4081
Gaming Supervisors	48	39-1011	Human Resources Assistants, Except Payroll & Timekeeping	51	43-4161
Gaming Surveillance Officers & Gaming Investigators	45	33-9031	Human Resources Managers, All Other	27	11-3049
Gas Compressor & Gas Pumping Station Operators	64	53-7071	Human Resources, Training, & Labor Relations Specialists, All Other	29	13-1079
Gas Plant Operators	61	51-8092	Hydrologists	33	19-2043

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	•		Librarians	38	25-402
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Industrial Engineering Technicians	32	17-3026		38	25-403
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	57	49-9041	Life Scientists, All Other	33	19-109
Industrial Production Managers	27	11-3051	Life, Physical, & Social Science Technicians, All Other	34	19-409
Industrial Truck & Tractor Operators	64	53-7051	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	45	33-909
Information & Record Clerks, All Other	51	43-4199	Loading Machine Operators, Underground Mining	64	53-70
nspectors, Testers, Sorters, Samplers, & Weighers	61	51-9061	Loan Counselors	29	13-20
nstallation, Maintenance, & Repair Workers, All Other	57	49-9099	Loan Interviewers & Clerks	51	43-413
nstructional Coordinators	39	25-9031	Loan Officers	29	13-20
nsulation Workers, Floor, Ceiling, & Wall	54	47-2131	Locker Room, Coatroom, & Dressing Room Attendants	48	39-309
nsulation Workers, Mechanical	54	47-2132	Locksmiths & Safe Repairers	57	49-909
nsurance Appraisers, Auto Damage	29	13-1032	Locomotive Engineers	63	53-40
nsurance Claims & Policy Processing Clerks	52	43-9041	Locomotive Firers	63	53-40
Insurance Sales Agents	50	41-3021	Lodging Managers	28	11-90
Insurance Underwriters	29	13-2053	Log Graders & Scalers	53	45-402
Interior Designers	40	27-1025	Logging Equipment Operators	53	45-402
nternists, General	42	29-1063	Logging Workers, All Other	53	45-40
Interpreters & Translators	41	27-3091	Logisticians	29	13-10
nterviewers, Except Eligibility & Loan	51	43-4111			
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Janitors & Cleaners Eveent Maids & Housekeening Cleaners	47	37-2011		59	51-404
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Kindergarten Teachers, Except Special Education	38	25-2012		45	33-10 ⁻
and garton road lots, Except openial Education	-	_0 _0	•	53	45-10
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andscape Architects	31	17-1012	=	47	37-10
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			Managers of Transportation & Material-Moving Machine & Vehicle Operators	63	53-10
				28	11-91

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Manicurists & Pedicurists	48	39-5092	Molders, Shapers, & Casters, Except Metal & Plastic	62	51-9195
Manufactured Building & Mobile Home Installers	57	49-9095	Molding, Coremaking, & Casting Machine Setters, Operators, & Tenders, Metal & Plastic	59	51-4072
Marine Engineers & Naval Architects	31	17-2121	Motion Picture Projectionists	48	39-3021
Market Research Analysts	34	19-3021	Motor Vehicle Operators, All Other		53-3099
Marketing Managers	27	11-2021	Motorboat Mechanics		49-3051
Marriage & Family Therapists	35	21-1013	Motorboat Operators		53-5022
Massage Therapists	44	31-9011	Motorcycle Mechanics	63 56	49-3052
Material Moving Workers, All Other	64	53-7199	Multi-Media Artists & Animators	40	27-1014
Materials Engineers	31	17-2131	Multiple Machine Tool Setters, Operators, & Tenders, Metal & Plastic	59	51-4081
Materials Scientists	33	19-2032	Museum Technicians & Conservators	38	25-4013
Mathematical Science Occupations, All Other	30	15-2099	Music Directors & Composers	40	27-2041
Mathematical Science Teachers, Postsecondary	37	25-1022	Musical Instrument Repairers & Tuners	57	49-9063
Mathematicians	30	15-2021	Musicians & Singers	40	27-2042
Meat, Poultry, & Fish Cutters & Trimmers	58	51-3022	Musicians & Onigers	40	21 2042
Mechanical Door Repairers	57	49-9011			
Mechanical Door Repairers Mechanical Drafters	32	17-3013	N		
	32	17-3013			
Mechanical Engineering Technicians	31	17-3027	Natural Sciences Managers	28	11-9121
Mechanical Engineers	41	27-4099	Natural Sciences Managers	30	15-1071
Media & Communication Equipment Workers, All Other			Network & Computer Systems Administrators		
Media & Communication Workers, All Other	41	27-3099 29-2012	Network Systems & Data Communications Analysts	30 51	15-1081 43-4141
Medical & Clinical Laboratory Technicians	43		New Accounts Clerks		
Medical & Clinical Laboratory Technologists	43	29-2011	Nonfarm Animal Caretakers	48	39-2021
Medical & Health Services Managers	28	11-9111	Nuclear Engineers	31	17-2161
Medical & Public Health Social Workers	35	21-1022	Nuclear Medicine Technologists	43	29-2033
Medical Appliance Technicians	61	51-9082	Numerical Tool & Process Control Programmers	58	51-4012
Medical Assistants	44	31-9092	Nursing Aides, Orderlies, & Attendants	44	31-1012
Medical Equipment Preparers	44	31-9093	Nursing Instructors & Teachers, Postsecondary	37	25-1072
Medical Equipment Repairers	57	49-9062			
Medical Records & Health Information Technicians	43	29-2071	0		
Medical Scientists, Except Epidemiologists	33	19-1042			
Medical Secretaries	52	43-6013			
Medical Transcriptionists	44	31-9094	Obstetricians & Gynecologists	42	29-1064
Meeting & Convention Planners	29	13-1121	Occupational Health & Safety Specialists	43	29-9011
Mental Health & Substance Abuse Social Workers	35	21-1023	Occupational Health & Safety Technicians	43	29-9012
Mental Health Counselors	35	21-1014	Occupational Therapist Aides	44	31-2012
Merch&ise Displayers & Window Trimmers	40	27-1026	Occupational Therapist Assistants	44	31-2011
Metal Workers & Plastic Workers, All Other	59	51-4199	Occupational Therapists	42	29-1122
Metal-Refining Furnace Operators & Tenders	59	51-4051	Office & Administrative Support Workers, All Other	52	43-9199
Meter Readers, Utilities	52	43-5041	Office Clerks, General	52	43-9061
Microbiologists	33	19-1022	Office Machine Operators, Except Computer	52	43-9071
Middle School Teachers, Except Special & Vocational Education	38	25-2022	Operating Engineers & Other Construction Equipment Operators	54	47-2073
Milling & Planing Machine Setters, Operators, & Tenders, Metal & Plastic	59	51-4035	Operations Research Analysts	30	15-2031
Millwrights	57	49-9044	Ophthalmic Laboratory Technicians	61	51-9083
Mine Cutting & Channeling Machine Operators	55	47-5042	Opticians, Dispensing	43	29-2081
Mining & Geological Engineers, Including Mining Safety Engineers	31	17-2151	Optometrists	42	29-1041
Mining Machine Operators, All Other	55	47-5049	Oral & Maxillofacial Surgeons	42	29-1022
Mixing & Blending Machine Setters, Operators, & Tenders	61	51-9023	Order Clerks	51	43-4151
Mobile Heavy Equipment Mechanics, Except Engines	56	49-3042	Orthodontists	42	29-1023
Model Makers, Metal & Plastic	59	51-4061	Orthotists & Prosthetists	43	29-2091
	00	3001			
Model Makers, Wood	60	51-7031	Outdoor Power Equipment & Other Small Engine Mechanics	56	49-3053

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			Political Scientists	34	19-3094
P			Postal Service Clerks	52	43-5051
			Postal Service Mail Carriers	52 52	43-5051
Packaging & Filling Machine Operators & Tenders	61	51-9111	Postal Service Mail Sorters, Processors, & Processing Machine Operators	52	43-5053
Packers & Packagers, Hand	64	53-7064	Postmasters & Mail Superintendents	28	11-9131
Painters, Construction & Maintenance	54	47-2141	Postsecondary Teachers, All Other	38	25-1199
Painters, Transportation Equipment	61	51-9122	Pourers & Casters, Metal	59	51-4052
Painting, Coating, & Decorating Workers	61	51-9123	Power Distributors & Dispatchers	61	51-8012
Paper Goods Machine Setters, Operators, & Tenders	62	51-9196	Power Plant Operators	61	51-8013
Paperhangers	54	47-2142	Precision Instrument & Equipment Repairers, All Other	57	49-9069
Paralegals & Legal Assistants	36	23-2011	Prepress Technicians & Workers	59	51-5022
Parking Enforcement Workers	45	33-3041	Preschool Teachers, Except Special Education	38	25-2011
Parking Lot Attendants	64	53-6021	Pressers, Textile, Garment, & Related Materials	60	51-6021
Parts Salespersons	50	41-2022	Printing Machine Operators	59	51-5023
Patternmakers, Metal & Plastic	59	51-4062	Private Detectives & Investigators	45	33-9021
Patternmakers, Wood	60	51-7032	Probation Officers & Correctional Treatment Specialists	35	21-1092
Paving, Surfacing, & Tamping Equipment Operators	54	47-2071	Procurement Clerks	51	43-3061
Payroll & Timekeeping Clerks	51	43-3051	Producers & Directors	40	27-2012
Pediatricians, General	42	29-1065	Production Workers, All Other	62	51-9199
Personal & Home Care Aides	49	39-9021	Production, Planning, & Expediting Clerks	52	43-5061
Personal Care & Service Workers, All Other	49	39-9099	Proofreaders & Copy Markers	52	43-9081
Personal Financial Advisors	29	13-2052	Property, Real Estate, & Community Association Managers	28	11-9141
Pest Control Workers	47	37-2021	Protective Service Workers, All Other	45	33-9099
Pesticide Handlers, Sprayers, & Applicators, Vegetation	47	37-3012	Psychiatric Aides	44	31-1013
Petroleum Engineers	31	17-2171	Psychiatric Technicians	43	29-2053
Petroleum Pump System Operators, Refinery Operators, & Gaugers	61	51-8093	Psychiatrists	42	29-1066
Pharmacists	42	29-1051	Psychologists, All Other	34	19-3039
Pharmacy Aides	44	31-9095	Psychology Teachers, Postsecondary	37	25-1066
Pharmacy Technicians	43	29-2052	Public Address System & Other Announcers	41	27-3012
Philosophy & Religion Teachers, Postsecondary	38	25-1126	Public Relations Managers	27	11-2031
Photographers	41	27-4021	Public Relations Specialists	41	27-3031
Photographic Process Workers	61	51-9131	Pump Operators, Except Wellhead Pumpers	64	53-7072
Photographic Processing Machine Operators	61	51-9132	Purchasing Agents & Buyers, Farm Products	29	13-1021
Physical Scientists, All Other	33	19-2099	Purchasing Agents, Except Wholesale, Retail, & Farm Products	29	13-1023
Physical Therapist Aides	44	31-2022	Purchasing Managers	27	11-3061
Physical Therapist Assistants	44	31-2021			
Physical Therapists	42	29-1123	R		
Physician Assistants	42	29-1071	IX.		
Physicians & Surgeons, All Other	42	29-1069			
Physicists	33	19-2012	Radiation Therapists	42	29-1124
Physics Teachers, Postsecondary	37	25-1054	Radio & Television Announcers	41	27-3011
Pile-Driver Operators	54	47-2072	Radio Mechanics	56	49-2021
Pipelayers	54	47-2151	Radiologic Technologists & Technicians	43	29-2034
Plant & System Operators, All Other	61	51-8099	Rail Car Repairers	56	49-3043
Plasterers & Stucco Masons	54	47-2161	Rail Transportation Workers, All Other	63	53-4099
Plating & Coating Machine Setters, Operators, & Tenders, Metal & Plastic	59	51-4193	Rail Yard Engineers, Dinkey Operators, & Hostlers	63	53-4013
Plumbers, Pipefitters, & Steamfitters	54	47-2152	Railroad Brake, Signal, & Switch Operators	63	53-4021
Podiatrists	42	29-1081	Railroad Conductors & Yardmasters	63	53-4031
Police & Sheriff's Patrol Officers	45	33-3051	Rail-Track Laying & Maintenance Equipment Operators	55	47-4061
Police, Fire, & Ambulance Dispatchers	52	43-5031	Real Estate Brokers	50	41-9021
Political Science Teachers, Postsecondary	37	25-1065	Real Estate Sales Agents	50	41-9022

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Receptionists & Information Clerks	51	43-4171	Ship Engineers	63	53-5031
Recreation & Fitness Studies Teachers, Postsecondary	38	25-1193	Shipping, Receiving, & Traffic Clerks	52	43-5071
Recreation Workers	49	39-9032	Shoe & Leather Workers & Repairers	60	51-6041
Recreational Therapists	42	29-1125	Shoe Machine Operators & Tenders	60	51-6042
Recreational Vehicle Service Technicians	56	49-3092	Shuttle Car Operators	64	53-7111
Refractory Materials Repairers, Except Brickmasons	57	49-9045	Signal & Track Switch Repairers	57	49-9097
Refuse & Recyclable Material Collectors	64	53-7081	Skin Care Specialists	48	39-5094
Registered Nurses	42	29-1111	Slaughterers & Meat Packers	58	51-3023
Rehabilitation Counselors	35	21-1015	Social & Community Service Managers	28	11-9151
Reinforcing Iron & Rebar Workers	54	47-2171	Social & Human Service Assistants	35	21-1093
Religious Workers, All Other	35	21-2099	Social Science Research Assistants	34	19-4061
Reporters & Correspondents	41	27-3022	Social Sciences Teachers, Postsecondary, All Other	37	25-1069
Reservation & Transportation Ticket Agents & Travel Clerks	51	43-4181	Social Scientists & Related Workers, All Other	34	19-3099
Residential Advisors	49	39-9041	Social Work Teachers, Postsecondary	37	25-1113
Respiratory Therapists	42	29-1126	Social Workers, All Other	35	21-1029
Respiratory Therapy Technicians	43	29-2054	Sociology Teachers, Postsecondary	37	25-1067
Retail Salespersons	4 3	41-2031	Soil & Plant Scientists	33	19-1013
·	50 57	49-9096		33 41	27-4014
Riggers Real Splitters Overry			Sound Engineering Technicians	38	25-2042
Rock Splitters, Quarry	55	47-5051	Special Education Teachers, Middle School		
Rolling Machine Setters, Operators, & Tenders, Metal & Plastic	58	51-4023	Special Education Teachers, Preschool, Kindergarten, & Elementary School	38	25-2041
Roof Bolters, Mining	55	47-5061	Special Education Teachers, Secondary School	38	25-2043
Roofers	54	47-2181	Speech-Language Pathologists	42	29-1127
Rotary Drill Operators, Oil & Gas	55	47-5012	Stationary Engineers & Boiler Operators	61	51-8021
Roustabouts, Oil & Gas	55	47-5071	Statistical Assistants	52	43-9111
			Statisticians	30	15-2041
S			Stock Clerks & Order Fillers	52	43-5081
			Stonemasons	54	47-2022
			Structural Iron & Steel Workers	54	47-2221
Sailors & Marine Oilers	63	53-5011	Structural Metal Fabricators & Fitters	58	51-2041
Sales & Related Workers, All Other	50	41-9099	Substance Abuse & Behavioral Disorder Counselors	35	21-1011
Sales Engineers	50	41-9031	Surgeons	42	29-1067
Sales Managers	27	11-2022	Surgical Technologists	43	29-2055
Sales Representatives, Services, All Other	50	41-3099	Survey Researchers	34	19-3022
Sales Representatives, Wholesale & Manufacturing, Except Technical & Scientific Products	50	41-4012	Surveying & Mapping Technicians	32	17-3031
Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	50	41-4011	Surveyors	31	17-1022
Sawing Machine Setters, Operators, & Tenders, Wood	60	51-7041	Switchboard Operators, Including Answering Service	51	43-2011
Secondary School Teachers, Except Special & Vocational Education	38	25-2031			
Secretaries, Except Legal, Medical, & Executive	52	43-6014	Т		
Securities, Commodities, & Financial Services Sales Agents	50	41-3031			
Security & Fire Alarm Systems Installers	56	49-2098			
Security Guards	45	33-9032	Tailors, Dressmakers, & Custom Sewers	60	51-6052
Self-Enrichment Education Teachers	38	25-3021	Tank Car, Truck, & Ship Loaders	64	53-7121
Separating, Filtering, Clarifying, Precipitating, & Still Machine Setters, Operators, & Tenders	61	51-9012	Tapers	54	47-2082
Septic Tank Servicers & Sewer Pipe Cleaners	55	47-4071	Tax Examiners, Collectors, & Revenue Agents	29	13-2081
Service Station Attendants	64	53-6031	Tax Preparers	29	13-2082
Service Unit Operators, Oil, Gas, & Mining	55	47-5013	Taxi Drivers & Chauffeurs	63	53-3041
Set & Exhibit Designers	40	27-1027	Teacher Assistants	39	25-9041
Sewers, Hand	60	51-6051	Teachers & Instructors, All Other	38	25-3099
Sewing Machine Operators	60	51-6031	Team Assemblers	58	51-2092
Shampooers	48	39-5093	Technical Writers	41	27-3042
·	46 54	39-5093 47-2211		4 i 56	49-2022
Sheet Metal Workers	54	41-2211	Telecommunications Equipment Installers & Repairers, Except Line Installers	90	49-2022

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Telephone Operators	51	43-2021
Tellers	51	43-3071
Terrazzo Workers & Finishers	54	47-2053
Textile Bleaching & Dyeing Machine Operators & Tenders	60	51-6061
Textile Cutting Machine Setters, Operators, & Tenders	60	51-6062
Textile Knitting & Weaving Machine Setters, Operators, & Tenders	60	51-6063
Textile Winding, Twisting, & Drawing Out Machine Setters, Operators, & Tenders	60	51-6064
Textile, Apparel, & Furnishings Workers, All Other	60	51-6099
Therapists, All Other	42	29-1129
Tile & Marble Setters	54	47-2044
Timing Device Assemblers, Adjusters, & Calibrators	58	51-2093
Tire Builders	62	51-9197
Tire Repairers & Changers	56	49-3093
Title Examiners, Abstractors, & Searchers	36	23-2093
Tool & Die Makers	59	51-4111
Tool Grinders, Filers, & Sharpeners	59	51-4194
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Traffic Technicians	64	53-6041
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Training & Development Specialists	29	13-1073
Transit & Railroad Police	45	33-3052
Transportation Attendants, Except Flight Attendants & Baggage Porters	48	39-6032
Transportation Inspectors	64	53-6051
Transportation Workers, All Other	64	53-6099
Transportation, Storage, & Distribution Managers	27	11-3071
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Truck Drivers, Heavy & Tractor-Trailer	63	53-3032
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Limping Pafarage & Other Sports Officials	40	27 2022
Umpires, Referees, & Other Sports Officials		27-2023
Upholsterers	60 34	51-6093 19-3051
Urban & Regional Planners		
Ushers, Lobby Attendants, & Ticket Takers	48	39-3031
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Veterinarians	42	29-1131
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Veterinary Assistants & Laboratory Animal Caretakers	44 43	
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Watch Repairers	57	49-9064
Water & Liquid Waste Treatment Plant & System Operators	61	51-8031
Weighers, Measurers, Checkers, & Samplers, Recordkeeping	52	43-5111
Welders, Cutters, Solderers, & Brazers	59	51-4121
Welding, Soldering, & Brazing Machine Setters, Operators, & Tenders	59	51-4122
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Woodworking Machine Setters, Operators, & Tenders, Except Sawing	60	51-7042
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Z		
Zoologists & Wildlife Biologists	33	19-1023

Educational Classifications

Occupations are classified into one of eleven categories listed according to these principles:

- An occupation is placed into the category that best describes the education or training needed by most workers to become fully qualified.
- Postsecondary awards, if generally needed for entry into the occupation, take precedence over work-related training even though additional skills or experience may be needed for a worker to become fully qualified.
- The length of time an average worker generally needs to become fully qualified through a combination of on-the-job training and experience is used to categorize occupations in which a postsecondary award generally is needed for entry.

Postsecondary awards

- (1) *First professional degree.* Completion of the degree usually requires at least three years of full-time academic study beyond a bachelor's degree.
- **(2) Doctoral degree.** Completion of a Ph.D. or other doctoral degree usually requires at least three years of full-time academic study beyond a bachelor's degree.
- **(3)** *Master's degree.* Completion of the degree usually requires one or two years of full time academic study beyond a bachelor's degree.
- (4) Bachelor's or higher degree plus work experience. Most occupations in this category are management occupations. All require experience in a related non-management position for which a bachelor's or higher degree is usually required.
- **(5) Bachelor's degree.** Completion of the degree generally requires at least four years, but not more than five years, of full-time academic study.

- **(6) Associate's degree.** Completion of the degree usually requires at least two years of full-time academic study.
- (7) **Postsecondary vocational awards.** Some programs last only a few weeks while others may last more than a year. Programs lead to a certificate or other award, but not a degree.

Work-related training

- (8) Work experience in a related occupation. Many occupations requiring work experience are first-line supervisors/managers of service, sales and related, production, or other occupations, or are management occupations.
- (9) Long-term on-the-job training. More than 12 months of on-the-job training or combined work experience and formal classroom instruction are needed for workers to develop the skills necessary to be fully qualified. This category includes formal and informal apprenticeships that may last up to five years. Long-term on-the-job training also includes intensive occupation-specific, employer-sponsored programs that workers must successfully complete. These include fire and police academies and schools for air traffic controllers and flight attendants. In other occupations (insurance sales and securities sales, for example) trainees take formal courses, often provided on the job site, to prepare for the required licensing exams. Individuals undergoing training generally are considered to be employed in the occupation. Also included in this category is the development of a natural ability (such as that possessed by musicians, athletes, actors, and other entertainers) that must be cultivated over several years, frequently in a nonwork setting.
- (10) *Moderate-term on-the-job training*. Skills needed to be fully qualified can be acquired during one to twelve months of combined on-the-job experience and informal training.
- **(11) Short-term on-the-job training**. Skills needed to be fully qualified can be acquired during a short demonstration of job duties or during one month or less of on-the-job experience or instruction.